

Registration of New Companies.

The following joint-stock companies have been duly registered—
CROSSWELL PLASTER, CEMENT, AND BRICK COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* The working and making of clay into bricks, drain pipes, and all similar articles. The subscribers are—J. Snaith, Leicester, 2; J. D. Snaith, Nottingham, 20; E. F. Cross, Nottingham, 2; G. F. Walker, Nottingham, 1; H. Sheen, junior, Liverpool, 10; J. E. Holland, Liverpool, 5; T. Crick, Liverpool, 10; M. Cooper, Crosswell Bishop, 10.

COMPANIA DE NAVIGATION PAR VAPOR DEL DIQUE I RIO MAGDALENA (Limited).—Capital 100,000*l.*, in shares of 10*l.* The business of shipowners in all branches. The subscribers are—A. B. Forwood, Liverpool, 8750; W. D. Forwood, Liverpool, 610; T. B. Forwood, junior, Spital, 610; P. Velos, Carthagena, 100; D. Campbell, Seacombe, 10; N. T. Fleming, Liverpool, 10; E. S. Hall, Liverpool, 10.

THE ABERMARD STEAMSHIP COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* To acquire, own, and work said steamship. The subscribers (who take one share each) are—L. H. Pugh, Aberystwith; J. Glassbrook, Swansea; T. N. Moore, Neath; G. H. Knight, Westbury; E. W. Bally, Frome; E. David, Swansea; R. J. Matthews, Swansea.

THE CONSTANTINOPLE SALVAGE COMPANY (Limited).—Capital 600*l.*, in shares of 5*l.* The business of salvors of marine property in all branches. The subscribers (who take one share each) are—C. T. Muscat, 101, Leadenhall-street; E. T. Agins, 90, Belize Gardens; G. A. Laws, Prudhoe Castle; R. W. Surtees, Daleham Gardens; W. Westin, Brockley; W. Sargent, North Shields; E. Hough, 15, Tower Hill.

THE MERTON FLOORCLOTH COMPANY (Limited).—Capital 5200*l.*, in shares of 10*l.* To acquire and carry on an established floorcloth manufacturing business. The subscribers (who take one share each) are—H. F. D. Williams, 20, Jermyn-street; E. Clements, Waterloo; J. Bryce, 57, Boyson-road; H. W. Butler, Merton; H. C. Clements, 65, Treherne-road; L. M. Bamber, Fulham; J. Marshall, Richmond.

THE COMPRESSED LIME CARTRIDGE COMPANY (Limited).—Capital 50,000*l.*, in shares of 20*l.* To acquire an invention of C. S. Smith and T. Moore, of "an improved method and apparatus for breaking down or getting coal and other minerals in mining, quarrying, or tunnelling operations," and also an invention for "improvements in machinery or apparatus for compressing lime and other pulverulent substances into solid form," and to take over and carry on an established business. The subscribers (who take one share each) are—M. H. Moses, 128, Westbourne Terrace; E. Chaplin, 25, Charles-street; E. Chaplin, Bartholomew-lane; C. Bunny, 11, Moorgate-street; J. T. Laurence, North Finchley; W. J. Stride, 3, Queen-street; E. Fielding, Dover.

THE NORTH-EASTERN ELECTRIC LIGHT AND POWER COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* The usual business of an electrician in all branches. The subscribers (who take 20 shares each) are—W. Wilson, Durham; S. Storey, Durham; J. H. B. Culliford, Sunderland; T. Wilson, Sunderland; R. M. Hudson, jun., Sunderland; W. E. Irish, Sunderland; S. Alcock, Sunderland.

THE KERNER BURGLAR PROTECTION COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.* To manufacture and sell fire and burglar alarms, signals, &c., worked by electricity or magnetism. The subscribers (who take one share each) are—T. Torrey, West Kensington; C. Austin, Upper Norwood; J. B. Henck, jun., 152, Beckenham-road; E. M. Turner, Forest Hill; W. L. Goodfellow, Hampstead; E. D. Lane, Clapham; G. Buckle, Catford.

THE BRISTOL GENERAL OMNIBUS COMPANY (Limited).—Capital 20,000*l.*, in shares of 5*l.* To establish, maintain, and work a local service. The subscribers (who take one share each) are—G. Stephens, Bristol; W. Tilley, Redland; G. Bishop, Bedminster; G. S. Tricks, Bristol; E. H. Pring, Bristol; W. H. Tricks, Bristol; W. M. Thomas, Redland.

THE FRENCH METROPOLITAN GENERAL ELECTRIC COMPANY (Limited).—Capital 1,200,000*l.*, in shares of 20*l.* The subscribers (who take one share each) are—L. P. Borthingham, 26, Bloomsbury-square; G. Pridout, 79½, Gracechurch-street; E. H. Cadcot, 3, East India Avenue; H. Brodgood, 24, Augustus-street; A. W. Gray, 88, Bishopsgate-street, Within; G. O. Wilkinson, 32A, Piccadilly; G. V. S. Sleeman, Kensington.

THE LONDON MANURE COMPANY (Limited).—Capital 28,000*l.*, in shares of 10*l.* To purchase the goodwill and carry on an established business. The subscribers (who take one share each) are—J. B. Ball, 1, Gresham-buildings; E. Purser, 116, Fenchurch-street; G. Purser, 116, Fenchurch-street; G. Croshaw, 116, Fenchurch-street; W. Stevens, Springfield-hill; H. C. Newton, Highbury; G. Fitzgerald, Clapton.

SHIP "TROWBRIDGE" COMPANY (Limited).—Capital 14,000*l.*, in shares of 100*l.* To carry out an agreement to transfer said barque to this company. The subscribers (who take one share each) are—E. B. Hatfield, Liverpool; P. Simpson, Liverpool; M. Milman, Liverpool; T. C. Jones, Liverpool; T. A. Jolliffe, Liverpool; A. J. Forte, St. Helens; C. F. Ellis, 17, Gracechurch-street.

SHAW, SAVILL, AND ALBION COMPANY (Limited).—Capital 700,000*l.*, in shares of 10*l.* A shipowner's business in all branches. The subscribers (who take one share each) are—W. Savill, 34, Leadenhall-street; M. Temple, 34, Leadenhall-street; J. Greenway, Clapham; J. Park, 52, Gracechurch-street; J. Galbraith, 8, Austin Friars; E. Pembroke, 8, Austin Friars; F. Ince, St. Bennet's Chambers.

THE VERDAL NICKEL MINING COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.* To adopt and carry into effect an agreement made between C. Trelease, of the one part, and the company, relative to the purchase of the lands, mines, and premises, &c., situated at Skjakkerdal, on the Thronditjan Fjord, in Norway, known by the name of the Verdal Nickel Mines. To fully work and develop these or any other mines, beds, quarries, or substances, and carrying on all operations in connection with smelting and refining, or otherwise dressing and dealing with any of the ores, minerals, and other substances. The subscribers (who take one share each) are—K. H. James, 1, Metal Exchange Buildings, metal broker; W. Shakespeare, jun., 1, Metal Exchange Buildings, metal broker; J. J. Grisson, 28, Victoria Park-road, gentleman; R. S. Archbold, 9, New Broad-street, merchant; W. R. Streeve, 9, New Broad-street, clerk; J. M. Carey, 9, New Broad-street, clerk; G. T. Verney, 9, New Broad-street, clerk. The following gentlemen constitute the first board: Messrs. James, J. D. Fletcher, A. Holland, T. K. Weir, E. Woods, and J. A. Weir. The number must not be less than three or more than six. Qualifications, the holding of shares to the value of 100*l.*

G. B. SMITH AND COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.* To acquire by purchase and carry on a bolt, rivet, and nut manufacturing business, situate at Brookfields, near Birmingham. The subscribers (who take one share each) are—G. B. Smith, Brookfields; J. J. Caswell, Wimbledon; E. Gane, Wimbledon; G. B. Nichols, Handsworth; S. R. Farrant, Handsworth; J. Crouch, Wimbleton; E. S. Walter, Wimbleton.

BRIGGS BROTHERS AND COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* The manufacture of seamless sacks, bed ticks, and other similar articles. The subscribers (who take one share each) are—B. Milner, Sale; W. Briggs, Rochdale; A. Briggs, Rochdale; O. March, Rochdale; H. C. March, Rochdale; T. Holt, Rochdale; E. Woodecock, Rochdale.

THE SOUTHEND-ON-SEA AND DISTRICT AUXILIARY RAILWAYS AND CARRIAGE COMPANY (Limited).—Capital 21,000*l.*, in shares of 3*l.* To construct, equip, maintain, and work auxiliary railways and tramways between Southend and Shoeburyness, &c. The subscribers (who take one share each) are—W. Byrne, 60, Stoke Newington-road; W. G. Card, Wandsworth; W. H. Wood, Surbiton; C. Cooper, Forest Gate; M. Davis, 27, Little Queen-street; J. J. Vincent, 18, Prospect road; H. Hewett, 82, Cambridge-road South.

THE BATTLEDOWN BRICK AND TERRA-COTTA COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* The manufacture for sale of clay goods, chimney-pots, bricks, tiles, pipes, &c. The subscribers (who take one share each) are—R. Armitage, Farnley Iron Works; C. M. Muller, Cheltenham; E. E. Armitage, Cheltenham; W. F. H. Morgan, Sheffield; A. Armitage, Sheffield; E. Armitage, Highfield Ben Rhydding; E. Armitage, Highfield Ben Rhydding.

THE LONDON AND GENERAL BANK (Limited).—Capital 100,000*l.*

n shares of 5*l.* The business of banking in all branches. The subscribers (who take 100 shares each) are—C. Baines, 48, Finsbury Circus; D. Burns, 52, Parliament-street; G. Dibley, Streatham; B. How, Sutton; M. Theobald, 23, St. Swithin's-lane; S. Walker, Sydenham.

THE OTTO BICYCLE COMPANY (Limited).—Capital 50,000*l.*, in shares of 2*l.* The business of makers, dealers, and agents of bicycles, tricycles, &c. The subscribers (who take one share each) are—J. Stephenson, 26, Suffolk-street; J. F. Bennett, 90, Charlotte-street; R. Molyneux, 2, Lyall-street; G. W. Egan, 9, Warnford-court; W. S. Garland, Hansworth; B. Glynn, 53, Warwick-road; S. F. Griffin, 4, Great Queen-street.

THE BILLITER-STREET OFFICES COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* To acquire a certain property, erect and maintain offices, premises, &c. The subscribers (who take one share each) are—J. Pound, 81, Leadenhall-street; C. F. Mackintosh, 3, Clarges-street; J. K. Malcolson, 11, King William-street; J. Sugden, 12, Aldermanbury; F. S. King, 2, Billiter Avenue; J. H. Stretton, 75, Cornhill; J. Fraser, Billiter House.

THE COLCHESTER NEW CORN EXCHANGE AND CUPS HOTEL COMPANY (Limited).—Capital 20,000*l.*, in shares of 2*l.* The establishment and maintenance of an exchange, and carrying on the business of an established hotel. The subscribers are—H. G. E. Green, Colchester, 6; B. Wool, Colchester, 6; J. Lay, Colchester, 5; J. Bartree, Colchester, 8; H. Withey, Colchester, 5; J. S. Surridge, Colchester, 5; E. Beard, Colchester, 5.

THE SCARGILL LEAD MINING AND SMELTING COMPANY (Limited).—Capital, 12,800*l.*, in shares of 2*l.* To purchase or other-

wise acquire the interest in a lease of certain mines and mining grounds, veins, flats or cakes of lead ore, situate under lands containing some 1625 acres and 200 acres respectively, in the parish of Barringham, North Riding of the county of York, for the term of 14 years, from May 1, 1881, for the purpose of carrying on the various operations of a mining and smelting company. The subscribers (who take one share each) are—T. Sample, Morpeth, land agent; J. P. Walton, Hitcham, mine proprietor; J. Walton, Darlington, lead manufacturer; J. D. Scott, Newcastle-on-Tyne, wine merchant; W. Havelock, Newcastle-on-Tyne, merchant; W. Milburn, Newcastle-on-Tyne, shipowner; B. Walton, Stanhope, lead manufacturer; T. E. Goddard, Newcastle-on-Tyne, accountant. (No Articles of Association have been registered.)

SIR W. C. ARMSTRONG, MITCHELL, AND COMPANY (Limited).—Capital 2,000,000*l.*, in shares of 100*l.* To acquire and carry on the business of engineers, ordnance makers, contractors, &c. The subscribers (who take one share each) are—A. G. Armstrong, Elswick Works; A. Noble, Elswick Works; S. Rendle, 16, Kensington Palace; Lord Sudeley, 7, Buckingham Gate; C. Mitchell, Newcastle-on-Tyne; J. McGaugh, Hogg, 17, Grosvenor Gardens; W. Thompson, Newcastle-on-Tyne.

HOUGHTON AND COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* To acquire and carry on an established printers, publishers, and bookbinders' business at Birmingham. The subscribers are—J. Houghton, Sparkbrook, 40; C. Houghton, Birmingham, 1; E. W. Radnall, Birmingham, 20; H. P. Stanton, Birmingham, 10; P. Caxter, Sutton, 1; W. H. Carter, 30, Bush-lane, 40; J. E. Hylton, 30, Bush-lane, 40.

The Owen Vean and Tregurtha Downs Mines, Limited.

These Properties have been recently inspected by MESSRS. THOMAS COLLINGWOOD KITTO and MATTHEW HESLOP, Mining Engineers. They were called in by MESSRS. H. R. LEWIS and CO., Bartholomew House; and their Reports are most favourable as to the present working and future prospects of the Company. We append both reports.

Mr. KITTO writes—

Nov. 13.—My report on the Owen Vean and Tregurtha Downs Mines must be necessarily brief, but their relative position in connection with the other rich mines of the district has been so often accurately described by the local mining authorities that a repetition by me is quite unnecessary. The geological formation of Owen Vean and Tregurtha Downs is equal to the best mines in Cornwall, the south part of the property being composed of granite, while at the north there is a course of felspathic rock, locally called elvan. Between the granite and elvan there is one of the most beautiful and highly mineralised runs of argillaceous schists that I have ever seen in the county, or, in fact, anywhere. This run of schist or killas contains a suit of lodes which have already been proved to be highly remunerative both for copper and tin. Judging from the samples picked out of the debris, the copper ore is of very superior quality, 1 ton being of as much value as 8 or 10 tons from some of the dividend-paying mines in the county.

The Owen Vean Mine is shown on the plan to be about 70 fms. deep, and Tregurtha Downs Mine about 60, or about the depth of an ordinary adit in the Gwennap district. A very significant feature in connection with these mines is, that although the plan shows the levels (tunnels) to have been driven very extensively and most of the ground to have been taken away between the galleries, the amount of debris at the surface is unusually small in proportion to the amount of work done. I say this is a very significant feature, inasmuch as it shows nearly all the stuff taken out of the mine was of some commercial value. Pieces of tin and copper ore may be picked up at intervals along the run of the suit of lodes for the entire length of the property, and all the heaps of debris left by the ancient tin streamers can be stamped at a profit.

I am pleased with the manner in which the necessary surface works are being prosecuted, and I notice that while everything is being provided to meet the requirements of the mine there is nothing superfluous. The engine-house for the 80-in. cylinder engine is proceeding rapidly, but the recent inclement state of the weather cannot fail to retard the progress a little. In justice to Cornish mining, I would like to point out that, although we may have to go abroad for our silver and gold, there are very few places in the world for a corresponding area that are equal to Cornwall for copper and tin. My foreign experience has been very considerable, and I say, advisedly, that if a property corresponding to Owen Vean and Tregurtha Downs were to be discovered in America, Australia, or Africa, it would cause immense excitement; the ground would be apportioned in comparatively small sections, and its market value would be fully 20 times that of these mines. I may say, by way of conclusion, that if you have not a very rich mine in Owen Vean and Tregurtha Downs, then my extensive mining experience is of no service to me.

I have the honour to be, Sirs,

Your obedient Servant,

THOMAS C. KITTO.

Mr. HESLOP states—I have carefully inspected the surface and geological features of the property on which the Owen Vean and Tregurtha Mines are situated, and compared the physical characteristics with those of the surrounding rich mines, as also with those of the most prominent mines in Cornwall, and I must at once say that never in the whole of my experience—extending over a period of thirty years—have I been more profoundly impressed with the mineral richness of any property than when I viewed that on which the Owen Vean and Tregurtha Mines are opened. The geological evidence of mineral wealth is so prominently and distinctly written upon the face of this property that no experienced miner on examining its features can help being inspired with a conviction that immense stores of metallic riches are hidden not far beneath the surface. No wonder that the celebrated Evan Hopkins, the eminent mineral geologist, on visiting this property exclaimed, "If ever there was a good mine in Cornwall this was sure to be it." I knew nothing of this great man's opinion when I visited the mines, but I at once expressed a similar one.

LOCALITY.—The above-named mines are situated in the Marazion district, which is remarkable for its rich mines. They are bounded on the north by Wheal Prosper, Wheal Friendship, Trevarthen Downs, and others; on the south by Wheal Neptune, Wheal Caroline, Tolvadden, &c., &c.; on the west by Great Wheal Fortune, &c., &c.; and on the east by Wheal Trevelyan, &c., &c. The whole of these mines, and several others not mentioned, have made immense returns of wealth, and furnish the most satisfactory evidence, supporting the opinions entertained in regard to the prospects of the Owen Vean and Tregurtha Mines making similar returns of ore.

STRATA AND LODGES.—The stratification is that known generally as granite, elvan, and killas, or clay slate rocks. Some of the lodes traverse the property on the line of strike with these belts of strata, and others run diagonally through them. They are both tin and copper producing lodes. There is also an important cross lode of

posterior age to those of the tin and copper ones, and this is a rich silver-lead bearing lode. The whole of these lodes are very distinctly shown on the property, and from the shallow workings made upon them they have yielded wonderfully large returns of rich tin and copper ores. The north lode greatly impressed me of its mineral worth, and from which I should expect large quantities of ore, irrespective of what the other valuable lodes will undoubtedly produce; indeed, it has seldom occurred, in the whole of my experience, that such distinct evidence is afforded of great mineral wealth as that which is so manifest on the Owen Vean and Tregurtha properties.

EXTENT.—The grant embraces a very large run on the course of the lodes, being over a mile in extent and quite large enough for two big mines.

VIRGIN GROUND.—The virgin ground on the course of the lodes between the Owen Vean and Tregurtha Mines is very considerable, and can be operated upon to a depth of 60 fms. by extending the levels on both sides of it from the two mines. This is a great advantage obtained by having these two large mines united.

WORKINGS, &c.—The plans and sections of the workings shown to me represent a depth of about 60 fms., as the lowest point attained both in the Flat-rod and engine lodes, and also on the other parts of the property. There are also several shafts sunk on each of these lodes intersecting the levels, which have been driven from the main shafts on both properties. The whole of these will be available in developing the mines, and of permanent value in working the property, more especially in developing the virgin ground between the two mines, where the great intersections of the strata and lodes take place. This is a most important feature.

PRODUCE OF THE LODES.—Judging from the specimens which I took from the old burrows, they show the strongest evidence that can be produced of the rich nature both of the copper and tin lodes, and fully confirm the statements made by those who worked in the mines, and also support the opinions held by so many eminent authorities as to the rich produce of which the lodes are certain to yield on being further developed.

MACHINERY, PLANT, AND BUILDINGS, &c.—The machinery consists of a first-class 80-in. cylinder pumping-engine, together with 70 tons of boilers and all the necessary accompaniments for draining the mine to a considerable depth. The buildings consist of engine-house, workshops, offices, &c., of a very substantial and permanent character, and upon a scale suitable for large mining operations; indeed, the whole of the buildings and workshops, &c., are very efficiently constructed, and bear testimony that those connected with the management are thoroughly convinced as to the permanency and richness of the lodes, and that a great mine awaits development.

QUICK RETURNS.—Immediately the mines are drained good returns of ore will at once be made from the old workings; besides the burrows contain a very considerable quantity of tin and copper, which could be dressed and made marketable while the mines are being drained. It is seldom, indeed, that such stores of mineral wealth can be so readily obtained as are indicated at the Owen Vean and Tregurtha Mines.

Meetings of Public Companies.

THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY.

The 25th half-yearly general meeting of shareholders was held at the offices, Finsbury-circus, on Friday, Nov. 10,

Mr. WILLIAM MARTINEAU, M.I.C.E., in the chair.

Mr. J. ARTHUR MORGAN (solicitor, general manager, and secretary) read the notice calling the meeting. The report of the directors and the accounts were taken as read.

The CHAIRMAN said—Gentlemen, it is only very little more than four months since our last meeting. You will remember that that meeting was held a good deal later than usual, in order to admit of the presence of Mr. Clemes, so that I shall not have much to tell you in those four months. I am always very glad that in this company we have these half-yearly meetings. It gives us an opportunity of meeting our shareholders and having their views, especially when, as in the present case, the meeting is more numerously attended than usual. I see gentlemen before me who are very competent to advise us, and whose opinion is deserving of the highest consideration. At our last meeting Mr. Clemes was with us, and he returned to Mexico about a month after that meeting. He went by way of San Francisco, and when there he went very carefully into the question of the best rock-boring machinery, and selected the very best he could for the purpose of working at our mines. That he has done, and I shall later on read you a letter from him. We were able at the last meeting to foresee, and discount as one may say, the state of affairs which we lay before you to-day, as we knew at the time very nearly how much profit we should make in the half-year for which we are now rendering the accounts. In general terms we expected at that time to be able to announce a profit of about 10,000£ for the half-year. Our expectations have been somewhat cut down, and the actual balance which we report now is very little over 9000£. There are some reasons for that, which I will tell you. The profits telegraphed over here, and announced in the manager's report, came together to 935£. Now, the difference between that and 9047£, is made up chiefly in this way. There were two parcels of ore bought by Mr. Almada after Mr. Clemes left, which were bought partly as a speculation to make some money out of, and partly as a means of remitting money. Those ores were somewhat over-valued. They were two large parcels (2500£ together), and they were over-valued to the extent of 2592. 12s. 6d.—that is to say, they realised that amount short of what was expected. That is one of the points. I do not mean to say that there was any loss made; there was a profit, but the profit was not so great as we were led to expect. Mr. Almada thought to make a profit of 500£, instead of which he only made a profit of 250£. Then in the monthly accounts made up after Mr. Clemes left, there was an omission in the item of salaries of 91£. I do not know how the omission arose. There is also a difference of 353£, on exchange. They made out the accounts on the other side at an exchange of 42½d, and all our accounts have been worked out at an exchange of 42d, which makes a difference of 353£, upon our rather large transactions. So on these three items which I have explained there is a difference of 703£. There is still a difference of 105£, to be accounted for, which must necessarily occur in monthly statements as compared with the total statement for six months. I enter into this explanation because many shareholders may have added up the profit as announced in our monthly reports, and found that our statements to-day for the six months does not quite come up to it. On mining matters there must be necessarily very little for me to say, because during the time Mr. Clemes has been absent, the mining which has been carried on has been carried on simply under his directions—the directions which he left, and which I explained to you very fully at the last meeting. Nothing new was attempted in any direction during Mr. Clemes' absence. The profits for the past half-year are certainly very satisfactory, and are very little short of any half-year, even in the best of the early days of the company. In those times our best profits were on two occasions about a little over 9000£. There was only one occasion on which the profits shown considerably exceeded that, and that was one half-year in which we showed a profit of 13,000£. But I need hardly remind gentlemen who can recall that circumstance that that profit turned out to be illusory to a considerable extent, and that the dividend paid on that occasion was the last dividend ever paid by this company. I will now read the letter from Mr. Clemes which we received yesterday morning, since the report was circulated.

Oct. 5.—We visited the different workings in the mine on Tuesday.—Main Stop: This working has now in horizontal section the configuration shown. The horse is great part ore enough to be remunerative. The part marked main lode is a pillar, and is some 10 ft. higher than the western stop, and is, therefore, not ready for attack. The falling off in the ore output is, therefore, due to a combination of circumstances. The ground to be removed is about 70 ft. long and 50 ft. wide; it is taken away in sections, and it happens that the section now being worked has during the past few weeks been very dry—i.e., the amount of ore in any given area of back has been much less than usual. The only (solid) part of this section now in solid ore is that adjacent to the rise. Operations have been very greatly hampered by want of men, all the miners who escaped being pressed for military service on the 15th ult. having gone into hiding. This scarcity obliged us to push on the western section in a hand-to-mouth fashion, and the sad effects of this will tell more after the men return, because the west section must be filled up and secured before attacking the horse, and the latter similarly treated before working at the eastern section. The ground is difficult to work, on account of the great width and of the enormous weight of deads overhead, and has to be handled with great care. There are as yet no signs of the soldiers being disbanded, and until this happens we cannot do more than we are doing—run 15 stamps. The back of the eastern is of good quality.—Primera Veta: We are trying to get men to drive on some ore ground in this place, but so far have not succeeded.—Rise in Clemes' Cross-cut, Minas Geraes: The ore in this place is richer in galena than most of ours; the back having become very hot, we are stopping at the bottom of the rise, but two men are all we have been able to obtain for this work.—Workings on Western Vein Inside—North of Mina Grande: Some of the indications in these workings, especially those in the small veins, are of favourable character. We have a strong well-defined quartz lode, and hope when the blowing machinery arrives to push these workings very much faster. San Jose shaft has been provided with a horse-whim, and the upper portion thoroughly secured. Nothing can be done here until we get men. We ordered in San Francisco some three weeks ago Challenge self-feeders for the stamp mill, an article we have long wanted. It will pay for itself in two months. No. 2 Burleigh compressor complete; two Ingersoll drills, 3 in.; 3000 ft. 2 in. gas-pipe; total about \$5200, and we yesterday remitted Mr. Stevenson 3000 Mexican dollars on account. We have had wagon-road inspected, and have to repair it in places, but no labourers for the purpose can be obtained. The mill bought in May for balls, and the galvanised pipe for ventilating underground are not yet on the spot.—J. H. CLEMES.

The CHAIRMAN continued—I look upon this account, all things considered, as satisfactory. The great difficulty at present is to get men, owing to the rising of the Indians on the United States frontier.

Mr. SCHOFIELD: How far is that from us?—The CHAIRMAN: These disturbances are about 200 miles from our mines. The Mexican Government have been what they call recruiting, but which we should call pressing, men for military service, so the consequences is the miners, to escape being pressed, left the spot and went into hiding. That is the cause of the scarcity of the miners which Mr. Clemes complains of; and it is evident that until the Indians are quiet, and things resume their usual course, we shall suffer for the next two or three months from a scarcity of labour.

Mr. SCHOFIELD: I suppose there is no danger to our mine from this insurrection?—The CHAIRMAN: No, it is a long distance off. The first we saw of these disturbances was a newspaper account of somebody being stopped and robbed on the mail route between Tucson and Alamos. Mr. Almada also alluded to it in letters, but not in terms which led us to suppose that it was serious, and it is only now that we know how seriously the matter affected us. Now, with regard to the accounts you will see, in the first place, that we have had to write off and extinguish the balance at the debit of revenue account, which has existed now for many years. We now start, as we may say, with a clear balance-sheet, without anything at the debit of revenue account. On the contrary, we have a credit of 2512£, to start with for the half-year. It is perfectly true, gentlemen, that we are now accumulating funds in hand, which we hope to be able to distribute to you, or, at all events, a portion of them, at an early period in next year. I think you will agree that the accounts, as shown up to June 30, do not warrant the declaration of a dividend for the half-year. (Hear, hear.) Mining is like any other business; the larger the business we do, the more floating capital we require, and the same sort of prudence should characterise our proceedings as would characterise the proceedings of any trader, who, when he came to take stock and reckon up what he had made in the half-year, would not consider himself justified in spending every farthing he earned, especially when he had to look forward to a larger and more extended business, which would require a larger and readily available working capital. Therefore, on the face of the accounts, we cannot recommend the payment of a dividend for the past half-year; but we have no doubt whatever that, with the money we are accumulating, we shall be able to pay a very satisfactory dividend at our next meeting. (Hear, hear.) I may tell you plainly what we have in hand. We have, at this moment, 5000£ on deposit, we have over 1000£ at our banks, and a bill has just been received this morning from the Anglo-Californian Bank for over another 1000£. That is really the present state of our finances. I hope the shareholders will not think that because we are flush of money we shall be all led to depart from the economical system which we have always endeavoured to follow. The only expenditure we have gone into is for this rock-boring machinery, the importance of which you will all acknowledge—(hear, hear), and which has been paid for, as you will see from Mr. Clemes' letter. We have sent the money from the mine to pay for it, and they will not have to draw upon us for it. In speaking of the accounts there is another point which we ought to bear in mind, and that is the reserve fund, which we ought to commence to accumulate again, which has been put by in former times, but which is only on paper at present. I think we should make that a reality. (Hear, hear.) You must not forget that we have money out on debentures, and that the reserve fund ought to accumulate for the purpose of paying off those debentures. There is a sum of nearly 1500£, put down as a reserve fund in the accounts, and I think that ought to be made a reality, and not a mere paper figure.

Mr. SCHOFIELD: Do you mean to take money out of the coffers of the company, and invest it in securities for the purpose of making it a reality?—The CHAIRMAN: Yes.

Mr. SCHOFIELD: I have no objection to that, supposing we can get an equivalent rate of money, but if we want the money in working, I think we could better afford to pay 5 per cent. for it.

The CHAIRMAN: We might invest it in our own debentures.—Mr. SCHOFIELD: If you can get them, or redeem them.

The CHAIRMAN then went on to read letters which he had received from influential shareholders, strongly approving of the policy of the board in paying no dividend on the present occasion, and, in conclusion, moved the adoption of the report and account.—Mr. A. P. FLETCHER seconded the motion, and said he thought the shareholders had reason to congratulate themselves on the improved position of the company.

Mr. SCHOFIELD said that Mr. Clemes had referred to some derangement of the lode, and asked whether it was anything serious, or of a permanent character?

The CHAIRMAN: Not in the least; Mr. Clemes himself does not think so. He attaches very little importance to it. It simply means that at that particular moment they happened to be working a less profitable part.

A SHAREHOLDER: That is a thing which has happened over and over again.

Mr. SCHOFIELD said this was very satisfactory, and calculated to dissipate any alarm which any of the shareholders might have felt. He concurred in every remark which the Chairman had made, and fully approved of the policy of paying no dividend on the present occasion. There was a gentleman in Dublin, named Hogan, who wrote him a letter threatening thunder and lightning, but this morning he had a letter in which Mr. Hogan "chucked up the sponge," and declined to take any further action in the matter. As regards the finances, there was scarcely a mining company which he was acquainted with which was in so excellent a position. The cost of the mine originally was 103,000£, and the amount of surplus capital they now had to work with was 26,715£. They had got in assets, bullion and actual cash, 19,785£, revenue, 2812£; reserve fund, 1420£, and July and August profit, 2055£, making a total of 19,785£; so that they had actually got in assets within 600£ of the original surplus capital they had for purchasing plant, erecting machinery, and opening the mines. Against that they owed 15,500£ in debentures. Therefore, the total outlay for opening out the mine, and for the plant and machinery requisite for returning 7 tons of pure silver from Jan. 1 to June 30, the total amount expended on explorations and machinery was 15,075£. That was a position which no other mine in England was in at the present moment, not even excepting the St. John del Rey; and he could not understand how men could go and sell their shares at the wretched price which they had done. (Hear, hear.) They were really worth double the money. This, in fact, was the richest silver mine owned by any company in London next to the Richon. In productivity at this moment. If he prophesied that in the course of six months their production of silver would have been doubled, he should not have been believed. It was at the rate of 24 tons to 30 tons of silver per annum—tons, not ounces. (Cheers.)

The CHAIRMAN: We have been producing silver by the ton, no doubt.

Mr. MICHELL asked whether the manager had given any idea of the reserves of ore in the mine?—The CHAIRMAN: He said at the last meeting he was quite certain we had reserves of ore for the year, and in July we had it from Mr. Clark, the underground captain. But I do not see that Mr. Clemes, judging from his letter, has made a sufficiently exhaustive examination of the mine to give an accurate estimate.

Mr. SCHOFIELD: He says you have a lode 1 ft. wide, which is improving.

The great inducement for Mr. Clemes to go back was the idea that there was a grand mine, and he should be very much grieved and vexed if anyone else discovered it besides himself. (Hear, hear.)

The CHAIRMAN: That is one reason why his return was of so much importance; if Mr. Clemes thought the mine was approaching exhaustion he would not have returned.

Mr. DIXON asked how much had been spent on exploration during the past six months?—The CHAIRMAN: It is difficult to say.

Mr. ELLIOTT (of Messrs. Waddell and Co., auditors), in reply to a further question by Mr. DIXON, spoke in support of the recommendation he had appended to the balance-sheet—that the sum standing to the credit of profit and loss account should be reduced by 6751. 16s. 9d.; as depreciation of the amount expended on mining and construction account.

Mr. H. SWAFFIELD (auditor): It may be remembered that about six months ago I looked into this matter, and I thought that a sufficient amount had been put to depreciation account, inasmuch as 9700£ had been placed there, and seeing that the sum of 30,000£ was a sum originally expended out of capital, just as the original purchase of the mine for 102,000£, I considered that by writing off of this depreciation account half-yearly we had brought the company into a sufficiently sound and satisfactory position financially, and that there was no legal necessity for continuing to write off 765£ every half-year, and so reducing the shareholders' chance of a dividend; because the half-year's account as it stands is sufficiently charged, inasmuch as whereas the profit for the half-year has been 9047£, yet we have placed a debit against the account of 6204£, to write off past debts against profit and loss account. Therefore, to have written off 765£, in addition to the 6204£, would be handicapping the company too much. Although Messrs. Waddell and Co. made the suggestion, believing it was a right one; yet looking at all the circumstances, and seeing that the company is now in a sound financial position, I think we had better let the accounts stand as they are. (Hear, hear.)

The CHAIRMAN: That is rather the directors' view. It is, however, a question for the shareholders themselves to decide. It is a difficult thing for directors to go against the counsel of auditors who have no object to serve except the interests of the shareholders. If the expression of opinion is strong that we should not write off that 765£, we shall feel authorised in not doing so in the future.

Mr. BAKERWELL said he wished to draw the attention of the directors to the desirability of reducing the debenture liability of the company. Every 1000£ they paid off was so much clear income. While the debenture-holders were receiving their 10 per cent., the ordinary shareholders were not participating in the 2½ per cent. which had been earned upon the working capital during the past half-year.

The CHAIRMAN: The debenture-holders will not relinquish the debentures till they mature. They have 3½ years to run. The debenture-holders will continue to enjoy their 10 per cent. as long as they can hold on to it.

Mr. SCHOFIELD: Instead of 2½ per cent. we have made a profit of 10 per cent. We have made a profit of 9047£, after paying 775£ interest upon debentures. That is, as nearly as possible, 10 per cent.

Mr. BAKERWELL: I was dealing with the available balance which the directors might have distributed.

The resolution for the adoption of the report and accounts was then put and carried.

The CHAIRMAN said that closed the business of the meeting, and said that next time he hoped the directors would be able to declare a substantial dividend out of funds actually in hand, and profits actually realised.

Mr. SCHOFIELD thought that the point raised by Messrs. Waddell and Co. had better be finally disposed of. He, therefore, moved:—"That no further sum be debited against revenue on account of depreciation or reserve fund without the consent of the shareholders." This resolution would not preclude the directors making a recommendation to that effect.—Mr. J. E. LITTLEHALES (a director) seconded the motion, which was agreed to dissentient.

On the motion of Mr. H. SWAFFIELD, seconded by Mr. BAKER, a cordial vote of thanks was passed to the Chairman and board, and the London manager.

The CHAIRMAN, in acknowledging the compliment, said that Mr. Clemes, when he returned to Mexico, had a strong feeling that he was going to make the mine a very much greater success than in the past. Without knowing exactly what Mr. Clemes was going to do, he believed that his great object was the Padre Mine, although at present he was giving his attention to the Mina Grande. The meeting then terminated.

WEST AFRICAN GOLD FIELDS.

The statutory meeting of shareholders was held at New Exchange Buildings, George-yard, Lombard-street, on Wednesday,

Commander CAMERON in the chair.

Mr. H. STONEMAN (the secretary) read the notice convening the meeting.

The CHAIRMAN said that was the statutory meeting of the company, and as the company had been so lately formed the directors had no report or accounts to present. He might say that up to the present moment the actual expenses of the company for machinery and stores had been about 1600£. The property of the company was close to Axim, which was the point to which the machinery for the different mines was sent. He had been on the ground himself, and he could say that it was a thoroughly valuable property. He found that not only was the surface soil on the property rich in gold, but he had taken up dirt from the roadside, and upon washing it, it had shown gold in very good quantities. The reefs in the property all gave good results. There were several good and well-defined reefs in the property, and coming down from the hills about the property there were bottoms, or pools of water, in which the natives from time immemorial had washed for gold with considerable success. The natives were, however, unable to get to the bottom of the hollows, where the heavier gold would be found. The rivers and streams coming down from the hills always brought gold down, and in the rainy season it paid the natives to wash for gold on the sea beach. With the means of working deep into these bottoms they would doubtless find most valuable results, as they would probably get coarser gold than they now obtain at surface. The property being very close to the coast the transport of machinery would be much in that in any company hitherto brought out there; in fact, he did not anticipate that from Axim to the different portions of the company's property the cost of transporting machinery would come to more than 3s. a ton, whereas to some of the mines in the Taquash district the cost would not be less than 20s. a ton; so that the company stood in a very favourable position in that respect. Of course, there were many new ways of working gold now. Dredging was being used on a large scale, and if they could float a dredger in the bottoms, they would have good results. Enquiries were being made to see whether that would be the best mode of working for them to adopt. The directors had been in negotiation with the people who had the dry-pan amalgamator. These negotiations were not yet completed, but he hoped they would result in an arrangement on terms favourable to the company. At present there was some little difficulty as to who had the right to send this amalgamator out. They had sent out already, for the purpose of commencing washing as soon as possible, a steam-engine, a rotary pump, and all the necessary shovels, picks, and other appliances required for making the sluices. He believed that the engine had now been landed at Axim, and that it was by this time being dragged up to the place to be fixed upon by the engineer for its erection, and the directors were anxiously expecting a letter from the engineer announcing his arrival on the property. Mr. Johnson, the company's manager and engineer, was a man of large, varied experience and of high standing, and the company could congratulate themselves in having secured his services. Under the manager they had appointed Mr. Flint, who had had large experience in hydraulic mining, while the engineer in charge of the engine was Mr. Venner, a young man of very good health, who had taken a first-class at South Kensington as a mechanical engineer, so that for the small way in which they were going to work the staff was as good as one as they could have selected. Native labour and artisans from Sierra Leone would be obtained on the spot. In addition to the advantage of being close to the seaside, the company possessed the additional advantage of having close to it a high hill with a gravel soil, which would provide a fine healthy site for the dwellings of the Europeans, and he expected that many of the people from Axim would go up there for change of air. The directors had already entered into negotiations for the sale of one-half of the property for 20,000£ in cash, and 25,000£ in the shares of a company to be formed for the purpose of working it, the payment to be made by Feb. 1 next, or the agreement would lapse. They had kept for themselves what they believed to be the richest part of the property. (Hear, hear.) They had also had an application from a syndicate of miners in Australia asking at what price the company would let them have 100 acres of land for experimental purposes. In reply, a rough plan showing

three separate plots had been sent. One of them, which contained a part of the reef suitable for the erection of quartz crushing machinery, had been offered at 10,000£, while the prices fixed for the other two plots had been 7500£ and 5000£ respectively. All the necessary tools and appliances for washing and for making prospecting shafts had been sent out, and it was hoped that they would soon have some results to announce to the shareholders. Mr. Johnson had been requested to prepare a plan on the scale of one chain to the inch, showing the position of the different places chosen for working. The one difficulty on the coast was that of labour. Some of the employers out there had been raising wages, and prices had gone up considerably; but the subject was now under discussion whether it would not be advantageous to import Chinese labour into the colony. (Hear, hear.) Speaking generally the discussion had been favourable to this view, and it was to be hoped that the necessary leave would be granted by the Government. If so, it would be very desirable that representatives of the different companies should meet and agree upon the terms on which this labour should be imported. The attention of the Government was being drawn strongly to the state of the existing mining laws of the colony, and draft ordinances with the view of improving these laws had been prepared. Some miles sent out from Tenasserim were doing exceedingly well, and it was believed that these could be very advantageously employed in connection with the mining operations. One of the companies at Taquash was sending over regular remittances, and the other companies were generally doing very well, and there was no reason for any jealousy between the mining companies out there, for the properties were so good in themselves. With regard to the climate, he had spent nine years of his life in tropical Africa without any ill effects, and he believed their staff would not suffer to any great extent in the high healthy position in which they would be located. (Hear, hear.) There were many far worse climates to which people did not hesitate to go. In 1854 it was against orders to sleep ashore at Zanzibar, but at the present time there was a considerable population of Europeans there. In conclusion, the Chairman congratulated the shareholders on the prospects of the company, and on the fact that so much had been done in such a short time. (Cheers.) In the prospectus it was stated that they would probably have results in about six months, but, of course, six months from the date of beginning work was meant. (Hear,

tors, of the truth, the whole truth, and nothing but the truth of the first crushing. On an occasion of this kind it is always a source of uneasiness to persons placed as I am, in a position of very great and heavy responsibility. There are certain doubts arise, but I am very pleased to say that the telegram which the directors received yesterday has removed one of the doubts. There still remain all the details and manipulations attaching to the crushing and the reduction of the quartz, but I do not fear that any difficulty will arise. The officers and men generally are well posted up in all the details of the operations, and I think they will, before the end of the month, be able to give actual results of the first trial of quartz which will be made. Our instructions are to simply start the work, and reduce 300 or 400 tons, or, in other words, to do solid work, and give you the results, say, in ounces or pennyweights. I must give the directors and staff, and all connected with the operations every credit. They have, by one and all, pushed forward this work to the best of their ability, aided by my humble endeavours, and I believe, confidently, the operation will eventually be a success. (Cheers.) I shall be very pleased, gentlemen, to answer any questions which you may like to put. Your Chairman has explained what has been done; if, however, I can give any further information upon any topic I shall be pleased to do so.

The resolution for the adoption of the report and accounts was then put and carried.

Mr. STAPLES: I fancy the shareholders will be glad, Mr. Harvey, if you will give some little further information as to what the returns will probably be when we get them, so that we may have something in our minds which will enable us to understand the returns. The shareholders would like to know whether you think your original view as to the productiveness of the lode remains the same now as then, and whether you consider the returns will be, in free gold £2 oz. to the ton, which was then in your mind, and what the cost of mining will be, and all necessary expenses, and the deduction therefrom; also what amount of ore can be passed through the stamps per day, in order that we may have something like an approximate idea as to what the profits will come to, if in ounces or pennyweights. I think the time has come when shareholders are entitled to the fullest information which can be given them. The difficulty is, in most companies, to get information as to what is going on, which is evidenced at once by the grumbling letters one sees in the newspapers. Now we are met together you may remove the cloud somewhat if you enter into some details as to what we have to look forward to. (Hear, hear.)

Mr. C. J. HARVEY: I am very pleased that my friend, Mr. Staples, if I may call him so, has led up to these various questions. I do not assume to make statements without I am prepared to prove them. In reply to Mr. Staples' question whether my opinion remains unchanged, I believe that I have stated that my opinion remains unchanged as to the value of the reef. I will repeat that at the commencement of the operations I estimated that the returns would be 10 dwt., to the ton; I still believe so. (Cheers.) I believe that your crushing will produce you 10 dwt., per ton, without any reference to the pyrites and sulphurites, or anything whatever—10 dwt., of free gold to the ton. Distinctly understand, I wish you to leave this room satisfied that the information you receive from me you can trust. I agree with Mr. Staples that there have been too many errors committed in not giving shareholders in Indian companies generally information, and the effect generally, all round has been most disastrous to the whole of the operations. (Hear, hear.) With regard to the quantity, the 20 heads of stamps, in full work, will reduce easily 60 tons per day. You will clearly understand that we start with 10 heads of stamps, and these 10 stamps will do 30 tons per day, that is, assuming that you start on the Monday morning, and run until Friday morning, working night and day. The amount of gold to pay a profit is very largely in excess of the actual working cost. What that cost will be I am unable to say; but when I tell you that as compared with any mine working in the Australian colonies, we have very valuable water-power, whereas, in the colonies they must employ steam, not only to draw the mineral from the mine, but to pump the water and to crush the ore. I think you will be able to draw your own conclusions when I tell you that 4½ dwt., there, notwithstanding this enormous expense, would leave a very fair profit. If such results can be obtained in Victoria solely with the aid of steam, what may we not reasonably expect at our mines with water-power. (Hear, hear.) The first cost is the main cost. It requires only a very small amount of care and attention to keep the machinery going with the turbine. The machinery is erected and ready to go to work, as the telegram assures me which we received yesterday. Therefore, one heavy responsibility is off my mind, and I only now confidently wait to hear the result. As to the crushing, whether for a day or a week, I should prefer it was a week, in order that you may have a tangible result, and say—I well, at last we have something which we can rely upon. I shall be happy if we can do that; but at this distance it is impossible to dictate to your manager what he shall do. He has done his best, and all will; he has done their best, and I am sure they will continue to do so, and they will not rest until they send you a fair and honest statement of actual returns. (Cheers.) I do not know that I can add anything further, but if I can, I shall be happy to do so. Then as to the machinery, the 10 heads of stamps which will start on or about the 22nd, are supplied with a patent arrangement for concentrating the sulphurites, and our other 10 heads of stamps are not, because I awaited the result of our first 10 before I applied them to the other 10. The whole of the machinery is erected, and could go to work to-morrow if they had their line of communication free. It is of very great importance that I should make myself perfectly clear, and I wish to see this thing a success; and if I can do anything towards securing this desirable result, I will work willingly day and night. There is a fine vein, 4 ft. to 5 ft. thick, as pretty a vein as ever I saw.

Mr. STAPLES: I believe the surface ore is of low grade, and you have not thought proper to pass that through the mill, but you wait until you get better stuff, and pass it through? —**Mr. HARVEY:** Yes; pass the whole through.

Mr. STAPLES: A shareholder near me says that in many of the other mines the surface quartz has been crushed with disappointing results, and they hope that as the lode goes deeper the lode will improve. Perhaps Mr. Harvey, from his large experience in gold mining, will confirm that—a true fissure vein almost invariably increases in value as depth is attained? —**Mr. HARVEY:** We have literally no surface quartz there, so we could not put it into the machine.

Mr. MARCET: asked whether they would be able to crush through the wet season? —**Mr. HARVEY:** said that in such a season as they had had they would not be able to work, but they would be able to work in ordinary wet seasons.

Mr. MOORE: moved a cordial vote of thanks to the Chairman, directors, and Mr. Harvey. —**Mr. STAPLES:** seconded the motion, and said the management up to the present time had been satisfactory, and no doubt the results would be equally satisfactory.—The resolution was carried.

Mr. HARVEY: in reply to a SHAREHOLDER, said it was all a myth about the difficulty of treating the pyrites. There was no difficulty whatever in treating them. That treatment of the pyrites was a distinct operation, requiring distinct appliances, and in all probability it would be better to send them to England for sale or treatment.

On the motion of Mr. ALEXANDER, seconded by Mr. PASTEUR, the auditors were re-elected.

The vote of thanks was acknowledged by the CHAIRMAN and also by Mr. HARVEY, and the meeting broke up.

THE PRINCE OF WALES MINE.

A general meeting of shareholders was held at the offices, Gracechurch-buildings, on Thursday (Mr. J. Y. WATSON in the chair), to examine and audit the accounts, to make a call, and to transact the ordinary business of the company.

Mr. C. B. PARRY (the secretary) read the notice convening the meeting. He also read the statement of accounts, which showed a balance of liabilities over assets of 15387. 14s. 7d.

The CHAIRMAN said the accounts for the four months ending Sept. 30 showed copper ore sales, 327. 14s. 9d.; tin sales, 3287. 12s. 6d.; but the costs, notwithstanding the expected reductions, had been very heavy, and showed liabilities over assets of 15387. 14s. 7d. The committee had done all in their power to reduce the costs, but at present had not been successful owing to the number of important points in operation at the mine, and which it had been thought best not to stop, as any day an important discovery might be made at one or other of them. About 4000 worth of ore were for sale in a few days, but they would come into the next account. At the last meeting a wish was expressed that Mr. Parry, the secretary, should visit the mine before this meeting, and Mr. Parry had done so, and would state what his opinion of the mine was.

Mr. PARRY: said he would first read the report of the agent.—The report was read as follows:—

Now, 14.—I beg to hand a report of the mine, showing the work done and the future prospects of your property, for the general meeting to be held on the 16th Inst. The 102 has been driven east 8 fms. 5 ft. 4 in. (making it from cross-cut 24 fms. 5 ft. 10 in.), on a large kindly lode from 3 ft. to 4½ ft. wide, and varying in value from 3d. to 18d. per fathom, for tin and copper ore; but in the last few holes blasted in it, it is not so good for copper, but being 14 ft. wide stamping work for tin, I feel confident it will soon improve in value. We have started a rise from the back of this end on the course of both lode and cross-course, in order to ventilate the bottom of the mine; and also to cut out profitable stoping ground. The lode being large and hard, we purpose putting up the rise by the side of the lode, and blasting it down after we have effected a communication with the 90. In the 102 west we have cross-cut north on the cross-course 1 fm. 4 ft., since which we have driven west 11 fms. 1 ft. 1 in. (making it from the cross-cut from the engine-shaft 31 fms. 3 ft. 7 in.) on a lode which is small and without value; but we think we must be on a false part of the lode, and that the main part of it is north, and advise to cross-cut in that direction at once. This end is now under the point where ours was first reached, and gone down in the bottom of the 90, and I have every confidence that when we find the main part of the lode at this level it will be very productive, as all indications in the ground are strongly in favour of it. In the 90 west we have driven 5 fms. 2 ft. 9 in. on a lode in this drivage from 1½ to 2½ ft. wide, producing low quality tinstuff and occasional stones of copper ore. At this point we intersected the western cross-course, which heaved the lode 7 ft., and in order to ascertain if there were any more of it further north, we continued the cross-cut 2 fms. 2 ft. further, but found no other part of it, and being past the strong stream of coppery water we commenced, and have since driven west on the lode 1 fm. 4 ft., varying from 1 ft. to 1½ ft. wide, of a very kindly nature indeed, impregnated with copper ore, and from which issues very freely a large stream of water, highly charged with copper. This end is 10 fms. south of the 77, and as the lode has been lost in the last 30 fms. driving of that level, I think it a fair proof that it is south, and have put a pair of two men to cross-cut in that direction on the course of the cross-course. I think it probable we may have 4 or 5 fms. to reach it. The lode in the stop in the back of this end (90 west) is 3 ft. wide, worth 3d. per fathom for copper ore, and 2d. for tin. The 90 east has been driven 3 fms. 4 ft. 8 in. on a lode 3 ft. wide, worth from 7d. to 10d. per fathom, in the back of the 90 east, the lode is 3 ft. wide, and worth 10d. per fathom for tin. We have five tribute pitches working by 16 men, and 32 on turnwork. These pitches are principally copper ore.—Goodluck! In the stop in the back of the 28 the lode is 4 ft. wide, worth 9d. per fathom for tin. For the future it is my desire that the present operations should be continued, and I have every reason to believe that we shall be able gradually to increase returns, and an improvement in either of the bottom or 90 ends particularly, which we may strike any day,

will place the mine beyond a speculation. In conclusion, I have great confidence in the success of the mine, and by perseverance I believe our efforts will be crowned with brilliant results. During my 40 years' experience as a Cornish miner I have not met with indications more favourable than are presented in the bottom and western part of Prince of Wales Mine.—S. ROBERTS.

Mr. PARRY went on to say that he found everything at the mine most satisfactory and promising, and he brought back two or three splendid specimens which were on the table. The place whence they were taken was giving out coppery water.

Mr. ALFRED THOMAS: Where did this specimen come from? —**Mr. PARRY:** From the 90 west. It comes in very rich occasionally. The captain thinks there is a junction of two or three lodes falling together. He is in the 77, and has put a little cross-cut to prove it, so I think that you will shortly hear something very important.

Mr. ALFRED THOMAS: said the 102 was valued sometime since at 18d. per fathom, and asked what was the present value? —**Mr. PARRY:** said it had gone off a little, but it was valued now at about 18d., but was not quite so good for copper. It was a somewhat bumpy lode. He had never seen anything better than was coming from the coppery water, and he believed they would have a strong lode there. Everything was being carried out exceedingly well at the mine.

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where offered on advantageous terms, and sellers are now holding back more. Wheal Crebors are exceptionally lower, $2\frac{1}{2}$ to 3, as the result of last week's meeting. Yesterday at the Prince of Wales meeting a call of 2s. 6d. was made; shares are 1s. to 1s., call paid, showing no change. Tankerville, 5s. 6d. to 6s. 6d.; Wheal Jane, $\frac{3}{4}$ to 1; Marke Valley, $\frac{3}{4}$ to 1; New West Caradon, 10s. to 12s. 6d.; West Caradon, 25s. to 30s.; Parva Corporation, 8s. to 10s.; Orita, $\frac{1}{2}$ to 1 $\frac{1}{2}$; Birside Creek, $1\frac{1}{2}$ to 2; West Crebors, 9s. to 11s.—*Closing:* The Hudson Bay report mentions that the total quantity of furs collected exceeds that of last year. Shares have been bought up to 35; Native Guano, $4\frac{1}{2}$ to 5. The rise in Brush Lights is now $\frac{3}{4}$; Bedford United, $1\frac{1}{2}$ to 2; South Devon, 15s. to 20s.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (Nov. 16), write:—The share market has been quiet during the past week, and prices do not show any material alteration. West Kitty, Wheal Peevor, and East Pool have advanced 10s. each. Cook's Kitchen, Tincroft, and Killifreth have declined 20s. Subjoined are the closing quotations:—Blue Hills, 1 to $1\frac{1}{2}$; Camborne Vein, $\frac{3}{4}$ to $\frac{3}{2}$; Carn Brea, 9 to $9\frac{1}{2}$; Cook's Kitchen, 36 to 39; Dolcoath, 72 to $72\frac{1}{2}$; East Pool, 51 to 51 $\frac{1}{2}$; East Uny, $\frac{3}{4}$ to 1; Killifreth, 4 to $4\frac{1}{2}$; Penhalls, 1 to 1 $\frac{1}{2}$; New Cook's Kitchen, 6 $\frac{1}{2}$ to 7; New Kitty, 2 $\frac{1}{2}$ to 3; South Condurrow, 9 $\frac{1}{2}$ to 10 $\frac{1}{2}$; South Crofty, 11 $\frac{1}{2}$ to 12; South Frances, 9 $\frac{1}{2}$ to 10; Tincroft, 7 $\frac{1}{2}$ to 8 $\frac{1}{2}$; West Bassett, 7 to 7 $\frac{1}{2}$; West Kitty, 13 $\frac{1}{2}$ to 14; West Peevor, 9 to 10; West Frances, 10 to 11; West Tolzus, 17 to 19; West Seton, 23 to 24; West Agar, 17 to 17 $\frac{1}{2}$; Wheal Bassett, 9 to 10; Wheal Comford, 1 $\frac{1}{2}$ to 1 $\frac{1}{2}$; Wheal Grenville, 8 $\frac{1}{2}$ to 9; Wheal Jane, $\frac{3}{4}$ to 1; Wheal Kitty, 1 $\frac{1}{2}$ to 2; Wheal Prussia, 1 $\frac{1}{2}$ to 2; Wheal Pussa, 1 to 1 $\frac{1}{2}$; Wheal Uny, 4 to 5.

—Mr. S. J. DAVEY, mine share dealer, Redruth (Nov. 15), writes:—Our market, on the whole, has been quiet during the week, but for a short time Wheal Peevor and West Seton were in good demand. Killifreths have had a heavy fall. South Crofty and Pedian-dre are also lower. West Kittys have risen $\frac{1}{2}$. Prices of other shares have not much changed. Market is very quiet to-day, with a little enquiry for West Kitty, Dolcoath, and East Pool. Subjoined are the closing quotations:—Blue Hills, 1 to 1 $\frac{1}{2}$; Carn Brea, 9 $\frac{1}{2}$ to 10; Cook's Kitchen, 37 to 38; Dolcoath, 72 to 73; East Pool, 52 to 52 $\frac{1}{2}$; Killifreth, 4 to 4 $\frac{1}{2}$; Mellanear, 4 $\frac{1}{2}$ to 5; New Cook's Kitchen, 6 $\frac{1}{2}$ to 7; New Kitty, 2 $\frac{1}{2}$ to 3; Penhalls, 1 to 1 $\frac{1}{2}$; East Pool, 52 to 52 $\frac{1}{2}$; Killifreth, 4 to 4 $\frac{1}{2}$; Mellanear, 4 $\frac{1}{2}$ to 5; New Cook's Kitchen, 6 $\frac{1}{2}$ to 7; New Kitty, 2 $\frac{1}{2}$ to 3; Penhalls, 1 to 1 $\frac{1}{2}$; East Pool, 52 to 52 $\frac{1}{2}$; Killifreth, 4 to 4 $\frac{1}{2}$; Mellanear, 4 $\frac{1}{2}$ to 5; New Cook's Kitchen, 6 $\frac{1}{2}$ to 7; New Kitty, 2 $\frac{1}{2}$ to 3; Penhalls, 1 to 1 $\frac{1}{2}$; East Pool, 52 to 52 $\frac{1}{2}$; Killifreth, 4 to 4 $\frac{1}{2}$; Mellanear, 4 $\frac{1}{2}$ to 5; New Cook's Kitchen, 6 $\frac{1}{2}$ to 7; New Kitty, 2 $\frac{1}{2}$ to 3; Penhalls, 1 to 1 $\frac{1}{2}$; East Pool, 52 to 52 $\frac{1}{2}$; 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[Nov. 18, 1882.]

Mining Correspondence.

BRITISH MINES.

ANDERTON TIN.—W. J. Bowhay, Nov. 15: All our works are going on quite satisfactorily, and there is no change to notice. The lode is as good as last reported. The rains have been very heavy, but have done us no harm, and we have a large flow of water for dressing.

BEDFORD UNITED.—H. Trezise, Nov. 14: North Lode: There is no change to report in the ends of this lode. The tribute pitches continue to yield a fair quantity of ore and the men are earning good wages. McCallum's engine-shaft is sunk 7½ fms. below the 42 in a good sized lode about 6 ft. wide, composed of peat, prian, mundic, and some yellow and black ore. The lode in the 42 west is very promising, composed of capel, peat, mundic, and some good stones of yellow ore of excellent quality. The lode in the same level east is looking more promising, and is strong and masterly in appearance, composed of capel, mundic, gossan, and ore. In the 30 east the lode is more promising than for some time past. I shall not be surprised to find a good improvement in the lode the next taking down. The lode in the winze sinking below this level and behind this end is without change. The stopes in the back are about the same value. The lode in the winze west of shaft at this level is 2 ft. wide and, very promising. The 20 east is much the same as it has been for some time past.

BRADA.—R. Rowe, Nov. 15: We have this morning got up steam and started the engine and machinery, and so far everything is to our satisfaction, weather and some other minor things between foundry and engineers have delayed us quite a fortnight. Underground there is not any special change since my last week's report, excepting in the 40 driving north, where the lode is fully 6 ft. wide, composed of gossan, malachite, black oxide, and yellow copper-ores—a finer looking lode could nowhere be seen. The Bulwark cross-cut at the 54 is still passing through the lode mixed with copper. The weather is still much against surface work; nevertheless, we are already making good progress in getting our first parcel of ore ready for shipment to Swansea.

BWLCH UNITED.—W. Northey, Nov. 15: In the 100 west the lode is from 1½ to 2 ft. wide, composed of killas, quartz, blonde, and intermixed throughout with lead ore of a very congenial character. In the cross-cut north at the 50 m. important change has taken place since my last report, but we are continually meeting some cross veins of carbonate of lime; the ground is rather hard for driving. In the 12 east under adit I am pleased to state that the lode has a very encouraging appearance, it being fully 2½ ft. wide, composed of killas, quartz, blonde, and spots of lead ore. For the past few feet driving the lode is quickly yielding to its proper bearing, and letting out water freely. No. 2 stope in the back of the 30 has slightly improved in value, and will yield fully 18 cwt. of silver-lead ore per fathom. In No. 3 stope, back of same, no change has taken place; the men for the past week have been engaged in selecting and wheeling their ore-stuff. Stope in back of 15 under adit, on Marvin's lode, will yield about 10 cwt. of silver-lead ore per fathom. A slight improvement has taken place in the appearance and character of the lode at this point. Drawing pumping, and dressing machinery are all in good order and working well. Dressing is kept going regularly. The parcel of lead ore sold on the 9th Inst. to Messrs. Neville, Drac, and Co., Llanelli, realised 154/- s.

CARNARVON COPPER.—J. Roberts, W. Darby, Nov. 14: In the sump below the 90 the ore has become much poorer, and the ground is harder and more spare for sinking. In the 56 end, at Garnon's, the ground is of a kindly appearance, with small patches of ore throughout. The sump at the 70, Cae-y-groes, is looking a little better this week. All the tribute pitches continue much the same value as for some time past.

CARNARVONSHIRE GREAT CONSOLS.—W. H. Borlase, Nov. 15: In consequence of having to stop the engine to repair the boiler, and through the late floods increasing the water, we have not yet forked the 24 dry, consequently I have nothing new to report on this point this week. Whilst the water has been in the men have been engaged driving an intermediate level from the winze between the 14 and 24, which is opening up very well, producing so far 1 ton of ore per fathom. The lode in No. 2 winze below the 14 east is producing about 1 ton of ore per fathom, but the ground is very hard, and progress slow. The whole of the lode in the 14 east has not been taken down as yet, owing to the hard spar course striking off in the hanging very fast, leaving a horse of killas between it and the soft spar on the footwall side. The lode or part of the lode being carried in sinking No. 1 winze below the adit in advance of this end is improving, and I think there is a good lode standing in the hanging. No. 1 stope, east of No. 2 winze, in the bottom of the adit, is not looking so good as last week. The stope west of No. 3 winze is worth 20 cwt. per fathom. The stope west of No. 1 stope, east of Big Pass, is worth 15 cwt., and No. 2 stope is worth 20 cwt. of ore per fathom. There is no change to notice in the winze on the junction. In the east and west lode, diagonal shaft, although our progress in sinking is impeded by the junction, the lead-bearing qualities of the shaft improves, the bottom of which shows two branches of lead, which will produce for length of shaft 3 tons of lead per fathom. I am more than pleased with the present indications, and hope soon to report a further improvement. The 14, west of this shaft, is at present suspended, the men having refused to complete their bargain at the price; lode worth 15 cwt. of lead per fathom. The stope in the back of the 8 west is at present only producing 5 cwt. of lead per fathom. We sampled on the 11th Inst., for sale on the 18th, 25 tons of ore.

COED-Y-FEDW AND PANT-Y-BUARTH.—R. Prince, Nov. 15: In the south driving, in the cross-lode in the 107, a very favourable change has taken place in the composition of the ground, which is now not only of a more mineralised character, but also easier for driving. Water is flowing from all parts of the forebear in increasing quantities. I, therefore, feel very sanguine, judging from these indications, that we are on the p^t of intersecting the east and west lode, when good results should follow. At Rowland's shaft we have obtained some very nice lumps of ore, with a quantity of leadstuff, from a fall in the 70 north. This evidently belongs to a deposit of ore which has been operated upon in the upper workings, but which I expect we shall find intact below this level. For the present, however, we will continue the clearing until we reach the Cefn Bychan lode. This we shall, I have no doubt, be able to finish by the end of the week, having ascertained its bearings and underlay. I shall then know where to expect to intersect it in our bottom workings. This lode has been very productive in the upper workings, and I expect to find it equally so when we operate on it in our lower level.

CROOK BURN.—J. Craig, Nov. 9: There is no change calling for remark in the adit level; the end is still in clay and large limestone boulders; 9 fathoms have been driven during the last four weeks, and is let to six men for the present month for 54s. per fathom.

CWM DWYFOR.—(Brynnarian Mine).—J. Davis, Nov. 15: We shall push on the driving of Joseph's level to cut the Brynnarian lode.

CWMSIWYTH.—Joseph B. Rose, Nov. 15: The lode in the stope under Levelawr on the copper lode is 10 ft. wide of a very promising character showing good lead throughout, worth fully 1 ton per fathom. We have recently cleared through an old broken down stope over these bottoms, and have now two men employed uncovering the stope, which will add considerably to its length westward. This will also enable us to get our stuff from this stope through the adit level, instead of having to raise it up to Levelawr. The two pitches over and under this level, also one over the adit level, on the copper lode and branches, are yielding 12 cwt. of lead ore per fathom each. The stope in the pitch under the 15, east of Kingside shaft, on Kingside lode and branches, has been deepened in the past month 5 ft. in a large lode, which has produced 2 tons of lead ore per fathom. In the pitch over the 15, east of Kingside shaft, on Kingside lode, the men are still engaged stripping out the north side, where a part of the lode has been left standing which has proved to be worth 15 cwt. of lead ore per fathom. The seven pitches worked on the new lode are at present poor for lead, consequently some of our men have left their bargains. Fair progress has been made with the dressing of halvans considering the very unfavourable weather we have been having for surface work. Our dressing and other machinery are kept in perfect order, and supply of water good. Samples of 40 tons of blende were sent out yesterday for sale on the 28th Inst.

D'ERESBY MOUNTAIN.—J. Roberts, W. Sandoe, Nov. 15: The forebear of the cross-cut at No. 5 is at the present moment not so good for lead as it has been, as it is passing through one of the poorer parts of the lode. We think to make a bore-hole communication in a day or two, so as to make better ventilation in the rise when the men commence working there again. At the present rate of working the water the stope will be dry on Friday morning.

DEVON FRIENDSHIP.—F. R. W. Daw, Wm. Gill, Nov. 15: Setting Report: The 42 fm. end, west of Bennett's shaft is set to four men at 7½, 10s. per fathom. The lode is 4 ft. wide, and worth for arsenical mundic 11½ per fathom. We expect shortly to cut the shoot of copper that the old company stopped upon for a few fathoms in the back of the 30 fm. level west. The No. 1 stope in the back of the 30 fm. level west of Bennett's shaft is set to two men at 2½, 10s. per fathom; the lode is 4 ft. wide, and worth for arsenical mundic 10½ per fathom. We are breaking a little copper in this stope.—No. 2 Stope: We have put the men in this stope to take down a piece of ground in the north wall of a stope further east. A new stope in the back of this level west of Bright's rise is set to two men at 20s. per fathom; the lode is 4 ft. wide, and worth for copper and mundic 12½ per fathom. The 12 fm. end west of Bennett's shaft is set to two men at 4½, 5s. per fathom; the lode is 5 ft. wide, and worth for arsenical mundic 6½ per fathom. The No. 1 stope in the back of this level is set to two men at 2½, 10s. per fathom; the lode is 3 ft. wide, and worth 10½ per fathom for arsenical mundic. The 15 fm. end east of winze is set to four men at 3½, 15s. per fathom; the lode is 4 ft. wide, and worth for mundic and tin 14½ per fathom. The No. 1 stope in the back of this level is set to two men at 2½, 10s. per fathom; the lode is 4 ft. wide, and worth for arsenical mundic 10½ per fathom: we are breaking some good stones of tin from this stope. Two stopes in the back of the adit level, east of Bennett's shaft, is set to four men at 3½, 2½, 10s. per fathom, and producing about 7 tons of arsenical mundic per fathom each. No alterations in price for trammimg, filling, and landing. We shall send you a report on our surface operations next week.

DRAKEWALLS UNITED.—M. Bawden, Nov. 15: On Saturday last we set the following bargains and pitches:—The deep adit to drive west of engine-shaft, by six men, with rock-drills, at 4½, 10s. per fm. The same level to drive east of Brenton's shaft, by six men, at 9s. per fm.; distance driven last month, 7½ fms.; it should, however, be stated that the rock drill was only at work a fortnight. The distance to drive to complete the deep adit throughout the full extent of old workings is between 40 and 50 fms. The 20 to drive west of engine-shaft by four men, at 6½ per fm.; driven last month 3 fms. We have the following stopes at work:—On the deep adit, west of engine-shaft, by four men, at 2½, 10s. per fathom. Two in back of the same level, east of Mathew's shaft, by eight men (four in each stope), at 3½, per fm. A rise in back of the 40, west of engine-shaft, to four men, at 4½ per fm. When this rise is communicated with the 20 we shall have a good section of stoping ground laid open, which can be profitably worked either on tutwork or tribute. We have twelve men working on tribute in back of adit and above, at 10s. in II, with a standard of 50t. per ton on rock-tin. We expect to drive about 11 fms. in the deep adit during the next four weeks. The excessive rains we have been recently getting have considerably retarded our surface work, but the appearance at surface and value of the property the situation is, we consider, very much improved during the last few months.

EAST BLUE HILLS.—S. Bennett, W. K. Miell, Nov. 15: During the past month the 50 (or adit) end east has been further extended 3 fms., in which driving, the lode has maintained its width fairly well, being from 1½ to 2 ft. wide, and in value from 5s. to 6s. per fathom. At times it has yielded some good tin-stuff. Two stopes in the back of this level are also worth from 5s. to 6s. per fm. In the 40 east end there has not been much done during the month, the men

having been employed in making stamps, floors, &c. The third water stamp (carrying 12 heads) has been completed. This, in addition to the previous 10 heads erected, will be equal to all our requirements for stamping purposes until the lode be opened up below the adit some two or three levels.

EAST LONG RAKE.—H. B. Vercoe, T. Davies, Nov. 15: We have commenced driving the 40 west from rise in roof of 50; the lode is very wide and contains a mixture of lead throughout. The prosecution of this drivage is a very interesting and important point, as it is penetrating a fine tract of mineral ground on the course of one of the most productive lead lodes in Flintshire, and which has yielded thousands of tons of lead ore to former proprietors from shallow workings, and there can be no doubt that the present company will be equally successful in making large returns of ore and profits from the 40, 50, and 60. We have a set of men stripping down the footwall portion of the lode immediately in rear of the 40; here we get rich lumps of ore and promising improvement. The man at work on the shallow flat has raised and dressed 13½ cwt. of lead during the past month. Our parcel of ore was sold yesterday, and realised 9s. 5d. per ton.

EAST ROMAN GRAVELS.—Arthur Waters, Nov. 15: The 100 south is proceeding some good lead and blonde stuff, and the end looks likely to improve shortly. The 97 south is going forward on a very promising-looking lode, and from the strings and branches of spar which are coming in from the footwall side it would appear that a shale bunch of ore may still be in front of the drivage here. No change in the stopes in the 85 since last reported on.

EAST WHEAL LOVELL.—R. Quantrell and Son, Nov. 15: Engine Lode: In the 46 east we are getting out of the disordered ground mentioned in our last report. The 46 west contains rather more tin than last week. We have communicated the winze below the 34 with the rise from the level below, and have set a stope, to six men, at 7½ ft. per fathom. The lode is looking very well, and is worth 16½ per fathom.—Rogers's Lode: There is no alteration in the middle shaft sinking below the 54. The stopes in the back of the 54 east is worth 5½ ft. per fathom, and in the winze sinking below the 54, under this stope, the lode is worth 10½ ft. per fathom, which shows it to be improving in depth.

GAWTON.—Geo. Rowe, Geo. Rowe, jun., Nov. 11: The part of the lode carried in the 117 end east is 7 fms. wide, yielding 18 tons of mundic and copper ore per fathom, and very kindly in appearance. The lode in the stope in the back of the 117, east of winze, is producing 18 tons of mundic and copper ore per fathom. The lode in Nos. 1 and 2 stope, in the back of the same level (117), is yielding 10 tons of mundic and ore per fathom. The lode in the stope in the back of the 105 fm. level is yielding 8 tons of mundic per fathom. The lode in the stope in the bottom of the 95 east is yielding 14 tons of mundic per fathom. The lode in Nos. 1 and 2 stope, in the back of the 70, east of cross-cut, is yielding 10 and 14 tons of mundic per fathom respectively. We are busily engaged in clearing out the arsenic chambers, and have shipped 50 tons of arsenic during the past week, and shall be ready to morrow to ship 50 tons more.

GODDARD'S LEAD.—R. H. Vivian, Nov. 15: Engine Lode: In the 46 east we are getting out of the disordered ground mentioned in our last report.

The 46 west contains rather more tin than last week. We have communicated the winze below the 34 with the rise from the level below, and have set a stope, to six men, at 7½ ft. per fathom. The lode is looking very well, and is worth 16½ per fathom.—Rogers's Lode: There is no alteration in the middle shaft sinking below the 54. The stopes in the back of the 54 east is worth 5½ ft. per fathom, and in the winze sinking below the 54, under this stope, the lode is worth 10½ ft. per fathom, which shows it to be improving in depth.

GODDEVERE.—R. Knott, Nov. 5: Setting Report: Higher shaft, to drive the bottom end east by four men at 7½ ft. per fathom, and stope the back at 34½ fm. The lode in the 117 end east is 7 fms. wide, yielding 18 tons of mundic and copper ore per fathom, and very kindly in appearance. The lode in the stope in the back of the 117, east of winze, is producing 18 tons of mundic and copper ore per fathom. The lode in Nos. 1 and 2 stope, in the back of the 105 fm. level is yielding 8 tons of mundic per fathom. The lode in the stope in the bottom of the 95 east is yielding 14 tons of mundic per fathom. The lode in Nos. 1 and 2 stope, in the back of the 70, east of cross-cut, is yielding 10 and 14 tons of mundic per fathom respectively. We are busily engaged in clearing out the arsenic chambers, and have shipped 50 tons of arsenic during the past week, and shall be ready to morrow to ship 50 tons more.

GORSEDD AND MERLLYN CONSOLS.—W. Edwards, Nov. 15: The 90 west level is now spotted thickly in the roof with lead ore; the ground is getting easier, and we are expecting every blow of the pick to be into the vein.

GREAT HOLWAY.—W. T. Harris, Nov. 15: Hoskell's Shaft: In the 110 west the lode in the rise is 3 ft. wide, carbonate of lime slightly improved for pro-

gress; but in character the same for some time past. In the 95 north the portion of lode being worked at present contains some nice stones of lead, and of a very promising appearance; judging from the composition of the lode we are within a short distance of an important improvement. In the 90 west fair progress is being made. In the rise in the back; water issues freely through the lode, which is worth 1½ ton of blonde per fathom.—Level Engine-Shaft: In the 60 east the lode is 2 ft. wide, producing 2 tons of lead and 1 ton of blonde per fm. In the level west from cross-cut the lode is yielding 1½ ton of blonde per fm. Fair progress is being made. The No. 6 A stope east below the level is worth 1½ ton of lead and 1 ton of blonde per fathom. A pitch west of shaft is 2 ft. wide, producing saving work for the stamps. To drive west, by four men at 50½ fm. per fathom, and stope the back at 24 fm.; lode 3 ft. wide, producing saving work for the stamps. To drive south from the engine-shaft by four men at 4½ fm. per fathom stope 2 fms.

GOSNEY'S LEAD.—R. Gossney, Nov. 15: Setting Report: Higher shaft, to drive the bottom end east by four men at 7½ ft. per fathom, and stope the back at 34½ fm. The lode in the 117 end east is 7 fms. wide, yielding 18 tons of mundic and copper ore per fathom, and very kindly in appearance. The lode in the stope in the back of the 117, east of winze, is producing 18 tons of mundic and copper ore per fathom. The lode in Nos. 1 and 2 stope, in the back of the 105 fm. level is yielding 8 tons of mundic per fathom. The lode in the stope in the bottom of the 95 east is yielding 14 tons of mundic per fathom. The lode in Nos. 1 and 2 stope, in the back of the 70, east of cross-cut, is yielding 10 and 14 tons of mundic per fathom respectively. We are busily engaged in clearing out the arsenic chambers, and have shipped 50 tons of arsenic during the past week, and shall be ready to morrow to ship 50 tons more.

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better progress. The lode is producing some rich copper ore and looks very kindly. We have uncovered a good quantity of native ochre, and have some hamis employed in washing the same.

PATTERSYKE AND CLARGILL HEAD.—J. Peart, Nov. 10: Top Level: At the south end very little change to report; plenty of vein and mixed with ore. All the vein stuff goes out for house.—North End: We get some good pieces of ore, which will pay the working. I think this place will soon improve. We have only been working at it a week during the last month.—Low Level: We have got this level cleared out up to where it is arched, but on account of some plate, &c., laying at the entrance and stopping the water, we could not get up to see what it was like; but if it is standing all right we will get up to the forehand in a week or two. The last two weeks we have cleared out 4½ fms.

PENNANT.—Nov. 16: South Lode: No. 1 stope is looking very well, producing sulphate and lead ore; the new branch still continues east. Progress throughout is very good.

PEN-YR-ORSEDD.—R. Prince, Nov. 16: I went underground here yesterday, but have nothing particular to report beyond repeating what I have already written—that progress has been somewhat slow in sinking the shaft, owing to the ground being excessively difficult for drilling. It is now easier in that respect, and the result is accordingly more satisfactory. We are not out of the dark ground yet and until this is done a change cannot be expected. We have only 2 or 3 yards further to sink through before this takes place. Of course, I do not say that immediately we are in the productive stratum below us we shall find lead; but I firmly believe that when we have intersected the middle and north lodes we shall find them rich, and a very short cross-cut from the bottom will enable us to do this.

POLCREBO TIN.—W. H. Martin, Nov. 15: We have cleared, divided, and cased the engine-shaft 12 fms. 2 ft. under the 17. I have been informed that 4 ft. more will reach the bottom; after this is cleared up the heavy cast attached to the engine-shaft will be finished, which is always very expensive work in fork to a mine. Highburrow shaft is timbered and secured 7 fms. under adit; the clearing of this shaft and the 17 east will be resumed in a few days, when we shall put the men and horses from the engine-shaft to clear with all speed. In the rise in the back of the north level the men are making fair speed, and are still desuing the lode. In the 17 on the cross-course we are taking out some old timber and placing new, making the level wider for barrow-road, and preparing to drive the cross-cut south to intersect the south lodes, which will greatly enhance the value of the property. After the deadwork is completed we shall have several valuable and important points for the men to work on.

ROMAN GRAVELS.—A. Waters and Son, Nov. 15: The various points, ends, winces, and stoves in this mine maintain the values given in late reports. The 20 south continues to go forward in a rich deposit of ore, present value of the end being quite 10 tons of bright soft galena per fathom. The 95 is approaching the same run of ore ground. Surface work going on in the usual way.

RUSSELL UNITED.—John Gray, Nov. 15: The lode in the 97 fm. level, east of Matthew's shaft, is from 3 to 4 ft. wide, composed of capes, quartz, with stones of copper and munde. Within the last day or two the indications are more favourable, and I hope soon to get a better report. The air machine will be at work the beginning of next week, when we shall commence to drive west in the great north lode on this level. Stephens' engine-shaft is sinking in a beautiful channel of mineralized ground, thickly spotted with copper and munde.

SILVER HILL.—G. Rickard, Nov. 15: Since last report the ground in the tunnel level cross-cut has become easier for driving, and 3 fms. 1 ft. have been driven. We are occasionally passing through some veins of munde, &c., spotted with lead and copper ores, which are dipping north fully 3 ft. in a fathom. The ground in the present forebay is containing more pyrite in the heads than at any previous time. We are making good progress in rising up from the back of the tunnel in Wheal Brothers lode, which is looking very encouraging, consisting of white iron, crystallized quartz, pyrite, and floskian, intermixed with a good deal of iron pyrites, being altogether a promising-lode for becoming rich in silver ores. The lode itself has not been sufficiently tested as to give the value of its in this report.

SINCLAIR.—W. Edwards, Nov. 15: Everything is progressing very satisfactorily in this mine. Water is issuing from the forebay of the cross-cut, and there is every indication that we shall be into the lode during the next few days. There are small partings running east and west, some spotted with lead, and the indications are such as to make one firmly believe that there is a great body of lead ore in front of us.

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. King, Nov. 15: Good progress is being made in the 93 cross-cut south, but the lode is not yet intersected. The 80 end east of King's lode is worth 12½ per fathom; the stope in the back of this level is worth 15½ per fathom. The lode in the back of the 70 east is worth 12½ per fathom. The 60 end east is worth 15½ per fathom, and the stope in the back is worth 12½ per fathom. The 50 end east yields stones of tin; the stope in the back is worth 12½ per fathom. The 40 end, east of engine-shaft, yields low quality tin-stone; the lode in the bottom of this level is worth 12½ per fathom. The 30 end west is worth 2½ per fathom; the stope in the back of this level is worth fully 20½ per fathom. The 25 end west is worth 10½ per fathom. The 78 end west of Marshall's shaft is worth 10½ per fathom. The 66 west is worth 6½ per fathom. The stope in the back of the 66 east is worth 8½ per fathom. The 54 end west is unproductive. The 42 west yields low quality tin-stone. The stope in the back of the 42 west is worth 15½ per fathom.

SOUTH DARREN.—Henry James, Nov. 15: In the 120 east the lode continues to look very well, and is worth from 1½ to 2 tons silver-lead ore per fathom. There is no change at any other point to call for remark. Saturday being setting day, a full report will be sent to you next week. We have sampled to-day for sale, on the 30th inst., 55 tons copper ore. The 45 tons silver-lead ore sold on the 10th inst. realised 64½ ls.

SOUTH DEVON UNITED.—Wm. Hooper, Nov. 15: I am pleased to say we have intersected a lode in the cross-cut north at the 110, east of Bush shaft, where, as far as seen, is 2 ft. wide, composed principally of munde and copper ore, only cutting it this morning; we are not at present in a position to give its size or value. The lode at the 100 was in places very similar to this before intersecting the rich lode last year. We are pushing on with this work with all speed. The stoves in the back of this level are worth in the aggregate 25½ per fathom. In the stope in the back of the 110, west of Brook shaft, the lode is 4 ft. wide, with a value of 7½ per fathom. In the stope in the back of the 100, west of Brook shaft, the lode is 4 ft. wide, with a value of 7½ per fathom. The lode in the rise in the back of the 80, against Martin's shaft, is 4 ft. wide, containing spar, munde, and copper ore. The ground here is not quite as favourable for rising, consequently the progress is not quite as fast as we could wish. In No. 1 stope in the back of the 80, east of Brook engine-shaft, the lode is 4 ft. wide, with a value of 9½ per fathom. In No. 2 ditto the lode is 4 ft. wide, with a value of 7½ per fathom. The lode in the adit level, west of old sump shaft, is without any particular change since last reported on.—Picketson's Shaft: I am pleased to say the men are making good progress in cross-cutting north towards the lode. We are making preparations for dropping another 12-in. lift in the place of the present 8-in. sinking lift, so that we may be in a position to command the water, because after intersecting the lode we expect a large increase, as was the case at the 140. All the pumps are on the mine, with exception of a working barrel and doorpiece. This we have ordered, and expect it in a day or so. Everything is being done to intersect the lode as quickly as possible.—Martin's Shaft: The usual progress is being made, the ground being of the same character as for some time past.

SOUTH TOLCARNE.—T. Angove, S. Arthur, Nov. 15: In the 120 east the lode continues to look very well, and is worth from 1½ to 2 tons silver-lead ore per fathom. There is no change at any other point to call for remark. Saturday being setting day, a full report will be sent to you next week. We have sampled to-day for sale, on the 30th inst., 55 tons copper ore. The 45 tons silver-lead ore sold on the 10th inst. realised 64½ ls.

SOUTH WHEAL CROFTY.—Josiah Thomas, W. Pascoe, J. Phillips, Nov. 15: The 205, west of cross-cut, on Middle lode, is worth 15½ per fathom. The 192 west, on Middle lode, is worth 15½ per fathom. The 180 west, on Middle lode, is worth 10½ per fathom. The 180 west, on the north lode is worth 10½ per fathom. The 180 east, on the north lode, is worth 25½ per fathom.

TANKERVILLE GREAT CONSOLS.—Arthur Waters, Nov. 15: Tankerville Lode: The 232, west of cross-cut, is driven 3 fms. 1½ ft. wide, worth 20½ per fathom, of lead ore per fathom, and improving. The 232 east is driven 3 fms. 4 ft. wide, yielding rich lumps of ore, and widening and getting more productive as we approach to the cavity seen in the level above. The winze in the 220 west is down 3½ fms., lode 4½ ft. wide, worth 30 cents per fathom. The rise and stope in the 206 west is worth 20 cents per fathom.—North Lode: The 232, west of Watson's engine-shaft, is driven 5½ fms., lode worth 25 cents, of lead ore per fathom, and improving. The winze in the 220 west is down about 5 fms., lode 4 ft. wide, worth 25 cents per fathom. The stope in this level east is worth 25 cents per fathom. The stope in the 192 west is worth 23 cents per fathom. Other points and pitches without change since last reported on.—Pentreverley, Warm Water Lode: The 120, east of cross-cut on salt lode, is worth 5½ ton per fathom. The stope in this level west of cross-cut is worth 20 cents per fathom. The 80 west is to-day in lode 4 ft. wide, worth quite 5 tons per fathom, and it is our opinion that this bunch is standing whole up to and west of the 70 end if not to the 60. It is quite plain that we have considerable reserves of ore ground here. Two stoves in bottom of the 80, west of winze, are worth together 3 tons per fathom. The stope in back of the lode is worth 20 cents per fathom. No change worthy of remark on Big Ore lode for the last week or two.—Potter's Pit: The run of ore along the bottom of this mine never looked better than now, and we are pushing on with new winze or shaft from the 80 to the 115, and which is intended to go down in the heart of the ore ground. The new engine to wind out of this shaft (to be driven by compressed air) is en route to the mine.—Bog Mine: The water is drained below the 175, and the shaftmen have to-day fixed the slide windorse preparatory to sinking to a deeper level. The points under development, together with the pitches above the 175, are without change since the date of our last full report. We trust that in three or four months from now we shall have all the mines well equipped with machinery in all respects and in full swing for getting lead ore and blende, and our opinion is that the coming year will show results which will be satisfactory to every one connected with the company.

TREVARREN UNITED.—W. Hooper, T. Job, Nov. 15: Since last reported on the shaftmen have been continuing driving south on Neil's lode at the 20 fm. level; the end at present is worth 35 per fathom, with every indication of iron proving. The north end at this level is now worth 35 per fathom. We shall push on this north end as fast as possible to open up more ground for stowing, as we have set a stope at 14½ in 1 ft, and our usual standard of 35½.—South Level: No. 1 stope is worth 27½ per fathom; No. 2, 34½ per fathom; No. 3, 7½ per fathom; No. 4, 47½ per fathom; and No. 5, 47½ per fathom.—North Level: No. 1 stope is worth 27½ per fathom; and No. 2, 27½ per fathom. At the 10, the south end on Neil's lode is much the same as last reported. No. 2 stope at this level is worth 27½ per fathom; and No. 5, 27½ per fathom. We shall have a parcel of tin ready for market on Friday next. All the surface operations are working satisfactorily.

VAN CONSOLS AND GLYN.—James Roach, Nov. 15: New cross-cut at 50 fm. level, driving south-east from pit at Murray's shaft, contains numerous spots of lead; most of our ore is obtained from the middle of the lode, therefore, as the cross-cut progresses, I expect we shall make valuable discoveries. It will strike

the hanging wall of lode some 19 to 20 fms. east of all operations about No. 1 stope, and in the virgin ground. Hence the driving may be considered an important operation. In the stope in roof of 70 west, we continue to drive west. Lode still producing 25 cts. of lead per fathom, and leaving a good sole and roof for stowing. We are now cutting south on the lode, where we have sundry small branches of lead. Stope in same section of ground. South of this is looking well, particularly the eastern portion of it. Stope further north, in same ground, is yielding 15 to 20 cts. of lead per fathom. I have sampled 35 tons of lead, and invited tenders for same on Saturday, the 18th inst. Machinery in good order and all work going on with the utmost regularity.

WEST CARADON.—N. Richards, Nov. 15: The western stope, on Virian's north lode, in back of the 50, will yield fully 3 tons of copper ore per fathom. The eastern stope is poor, and abandoned, and the men put to stope in back of the 39, on this lode, which is yielding 1 ton of ore per fathom. A rise in back of this level, on Taylor's lode, has an improved appearance, and will yield from 1 to 1½ tons of copper ore per fathom. Gilpin's lode, in this level, driving west of main cross-course, is producing a little ore, but not enough to value. This lode in the adit level, west of main cross-course, will yield ½ ton of copper ore per fathom. The rise in back of this level will yield in the aggregate fully 3 tons of copper ore per fathom. There is no change to notice in the adit level in the Western Gornamena since my last.

WEST DEVON GREAT CONSOLS.—George Rowe, Nov. 15: The engine shaft is completed 9 ft. below the 36, and tip-plat cut for depositing the stuff. We shall now be cutting cistern-plate and bearer-holes to receive the plunger-lift, and timbering down the shaft, fixing pent-house, and other necessary work for deepening the mine to another level. The lode in the 36 west is 2 ft. wide, producing very strong mundi spotted with ore.

WEST GODOLPHIN.—T. Hodge, F. Hodge, Nov. 14: Caunter: The 80, south-east produces some good stones of tin. In the 20 we have effected a communication with the winn-shaft, whereby there is good ventilation, and enables us to open up this ground, we hope, to good advantage.—Billingham's Lode: The 39 west is worth 7½ per fathom. The 70 west is worth 6½ per fathom. The winze in the bottom of the 70 west is worth 10½ per fathom. In the 70 east nothing has been done since our last, the men being coasteing. The 60 west is worth 8½ per fathom. The stoves are producing their usual quantity of tin. Feeling persuaded that we ought to find a lode called Pauli's lode, and in a good section of ground not yet discovered in the centre of the mine, we are coasteing, and have sunk two pits 9 fms. between each; already good stones of tin are raised, and the lode discovered. We cannot speak of its value as yet, but prefer waiting for a little further development.

WEST KITTY.—W. Vivian, Nov. 15: In the rise in the back of the 72 the lode is worth 15½ per fathom. In the 60, driving east of rise, the lode is worth 25½ per fathom. In the 60, driving west of cross-cut the lode is worth 9½ per fathom. Driving east the lode is worth 10½ per fathom. No change to notice in the stope since last report.

WEST MARY ANN.—T. F. Tremellen, Nov. 15: Since the last meeting our attention has been directed to pumping out the water and repairing the shaft from the adit to the 40; this being completed we have resumed our drivage south. At this point our lode is 2½ ft. wide, and very much improved in value within the last 6 ft., and is now producing very rich stones of silver-lead ore, judging from its general character, and the rich quality of silver it contains we are of opinion that it cannot fail to make large quantities when further developed.

WEST POLBREKEN.—Wm. Vivian, Nov. 15: In the 40, driving east of cross-cut, on Dorcas lode, the lode is 3 ft. wide, very kindly in appearance, producing a little tin. We have started a cross-cut about 40 fms. east. I consider this to be a very important point, as this lode has been very productive in the adjoining mine.—New Kitty.

WEST PROVIDENCE.—J. Pryor, W. Harris, Nov. 15: All the various points of operations are yielding their usual quantities of tin, and there is no change to notice since the last report. The stamps, &c., are working very well. We are busily engaged preparing another batch of tin, and purpose selling it next week.

WEST VOR AND LEEDS.—S. Harris, Nov. 15: The lode in the adit level, east of cross-cut, is further improved during the past week, and never looked so kindly as it does to-day, and as named in my last report we have over 200 fms. from the present end to reach the great flookan, to the east of which the Great Wheal Vor made great riches in a continuation of the same lode, so we have every encouragement to expect success by exploring east and in depth.

WEST WHEAL TOLGUS.—J. Vigors, Nov. 15: Richard's Shaft: The lode in the 105, west of shaft, is 3 ft. wide, composed of spar and peach, and yielding 1½ ton of copper ore per fathom. The lode at present is somewhat disordered by a cross-branch of mundi. The lode in No. 3 rise at the back of the 95, west of shaft, is 2½ ft. wide, producing stones of ore, but not sufficient to value. The lode in the 85, west of shaft, is 3 ft. wide, composed of spar and soft killas, and at times producing good stones of ore. The lode in No. 1 stope at the back of the 105, west of shaft, is 6 ft. wide, yielding 5 tons of copper ore per fathom. The lode in No. 2 stope at the back of the 105, west of shaft, is 5 ft. wide, producing 4½ tons of ore per fathom. The sampling on Tuesday next will be about 180 tons of good produce ore. We shall be prepared to put the boring machinery to work next week.

WHEEL COMFORT AND NORTH TRESEAVEAN.—H. Treganowan, Nov. 13: Setting Report: Tin Lode: The 15 to drive west of Railway shaft, by six men, at 10½ per fmin. There is a kindly looking lode in this end, and we expect in about 3 fms. driving to cut the tin ground seen in the level above, where we are sinking a winze, which is worth 20½ per fmin. for 8 ft. long; by six men, at 10½ per fmin. To stop the bottom of the 5, by nine men, at 8½ per fmin.; where the lode is worth 18½ per fmin. The 5 to drive east of Railway shaft, by two men, at 7½ per fmin., to be worth 7½ per fmin., with a kindly appearance for an improvement.—Copper Lode: A winze to sink below the 10, by four men, at 9½ per fmin.; lode producing a little copper. A rise in back of the 20, against the winze, by four men at 9½ per fmin. We hope to hole this piece of ground in about four weeks, when we shall have a good piece of copper ground to stope. We shall resume the driving of the 20 west, where the lode is 2 ft. wide, producing little copper, and looks promising for an early improvement. On the whole the mine is looking better; our sales of tin will increase from this time.

WHEAL CREBOR.—H. Phillips, Nov. 14: There is no change in the 132 cross-cut south, east of new shaft, or the 132 end driving west, since last reported. We have commenced to drive in the bottom of the No. 2 whiz to meet the 132 cross-cut driving south; the lode in the winze contains capel and spar, with stones of mundi and ore. The lode in the stope in the bottom of the 120, west of winze, is worth 35½ per fmin. The lode in the stope in the back of the 105, east of rise, is worth 15½ per fmin. The lode in the 85, west of shaft, is worth 3½ per fmin. The lode in the back of the 95, east of new shaft, is worth 14½ per fmin. The lode in the rise going up in the back of the 95 contains good stones of ore, but not to value. All the dressing operations are without change.

WHEAL GREENVILLE.—T. Hoige, Nov. 15: Fair progress is being made in sinking Gould's shaft below the 190. The 190 east end is worth about 6½ per fmin. The 175 east end produces low price tin-stone. The 185 east end is worth 6½ per fmin. The cross-cut just behind the said end going north is hard, and of little value. The 150 east end is worth 15½ per fmin. The 140 east end is worth 8½ per fmin. The 120, west of the western shaft, is worth 12½ per fmin. N. Another change.

WHEAL PRUSSIA AND CARDREW UNITED.—J. Pryor, Nov. 15: Since the last report we are pleased to say that we have cut a fine-looking copper lode in the cross-cut north at the 40 west. As far as seen the lode is from 16in. to 24½ wide, and produces splendid stones of rich copper ore, and worth about 15½ per fmin. There is also a quantity of water issuing from it, which is a good indication. We hope this will be found to be a very important discovery as we have reason to suppose the lode is standing to the north of the Cardrew copper lode above and below this level. As soon as we have driven a little distance on it we shall be enabled to see its course, and also to cross-cut at the various other levels to prove its productiveness. All other parts of the mine are looking just the same as reported last week.

WHEAL SILVER AND LANTEGLOS.—W. Scown: We have driven the cross-cut in towards the great lodes 2 fms., and have cut through the new lode reported last week; it is about 3 ft. wide, and consists of spar, spathose iron, and copper and mundi. I should think it will form a junction with the great lode 4 or 5 fms. from where we cut it. The water is coming quicker. I expect we shall cut the great lode in another week.

THE AMERICAN IRON TRADE.—A recent official report shows that last year was the most prosperous one that American iron and steel manufacturers have ever known as regards production, continuing the growth of activity apparent since 1879. The importation of iron and manufactured products showed a considerable falling off from 1880, when the highest figures known in the history of the trade were reached. During 1881 California, Colorado, and Washington Territory entered the field as producers of iron. The total number of iron furnaces in the United States is estimated to be 716, of which at the close of the year 1875 were in blast, and 261 out of blast. As to fuel, the active furnaces are nearly equally divided between bituminous, anthracite, and charcoal. The growth of the Bessemer steel industry may be estimated from the fact that the production of ingots in 1881 was 1,533,157 net tons, as against 120,108 in 1872. The increase on 1880 is 23 per cent. Bessemer steel ingots were produced by 13 works in 1881, of which seven are in Pennsylvania (two new works there produced Bessemer steel for the first time). Since the close of the year one new factory has started at South Pueblo, Colorado; and two others (at Scranton, Pennsylvania, and at Chicago) are expected to begin operations before the close of the year. The 13 Bessemer works above referred to

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 17, 1882.

IRON.	s. d.	£ s. d.	TIN.	s. d.	£ s. d.
Fig. GMN, f.o.b., Clyde...	2	9 11 —	English, ingot, f.o.b...103	0	104 0 0
" Scotch, all No. 1 ...	2	10 9 — 2 11 0	" bars	104	0 105 0 0
" Welsh, f.o.b. Wales	5	15 6 — 0 0	" refined	105	0 106 0 0
" in London	6	15 6 — 0 10 0	Australian	98	5 0 98 10 0
" Stafford	7	10 0 —	Banca	nom.	—
" in Tyne or Tees ...	6	15 0 — 6 5 0	Straits	98	5 0 98 10 0
" Swedish London	9	15 0 — 10 0 0	COPPER.	—	—
Rails, Welsh, at works	5	15 6 — 0 0	Tough cake and ingot.	71	10 0 — 72 10 0
Sheets, Staff., in London	9	10 0 —	Best selected	73	0 0 — 74 0 0
Plates, ship, in London	9	5 0 — 9 10 0	Sheets and sheathing	78	0 0 — 79 0 0
Hoops, Staff.,	8	0 0 —	Flat Bottoms	81	0 0 — 82 0 0
Nail rods, Staff., in Lon	7	10 0 —	Wallaroo	74	0 0 — 74 10 0
STEEL.	—	—	Burma, or P.C.O.	73	10 0 — 74 0 0
Engls. spring 12	0 0 — 18 0 0	Other brands ... nom.	71	0 0 — 73 0 0	
" cast 30	0 0 — 45 0 0	Chili bars, g.o.b.	67	12 6 — 67 15 0	
Swedish, keg	15	0 0 —	Flasks, 75 lbs., war.	5	16 9 —
" tag, ham	15	10 0 —	PHOSPHOR BRONZE.	—	—
Rails at works	5	15 0 — 5 10 0	Alloys I., II., III., and IV.	... 1218 0 0	
" Light, at works	6	10 0 — 6 15 0	VI. and VII.	143 0 0	
LEAD.	—	—	" XI. Sp. bearing metal	120 0 0	
English, pig, common	14	2 6 — 14 5 0	Brass.	—	—
" L.B.	14	7 6 — 14 10 0	Wire	8 d. —	—
" W.B.	14	15 0 — 14 17 6	Tubes	10 1/2 —	—
" sheet and bar.	14	15 0 — 15 0 0	Sheets	5 1/2 —	—
" pipe	15	0 0 —	Yel. met. sheath. & sheets	6 1/2 d. — 6 1/2	—
" red	16	5 0 —	TIN-PLATES.*	per box.	—
" white	20	10 0 — 22 10 0	Charcoal, 1st quality	1 1 0 — 1 2 0	—
" patent shot	16	10 0 —	2nd quality	1 0 18 0 —	—
Spanish	13	15 0 — 13 17 6	Coke, 1st quality	0 18 0 —	—
NICKEL.	—	—	2nd quality	0 16 6 — 0 1 1 0	—
Meta. per cwt.	15	0 0 — 16 0 0	Black.....per ton	15 0 0 —	—
One 10 percent. per ton.	20	0 25 — 0 17 0	Canada, Staff. or Gla.	12 0 0 —	—
SPELTER.	—	—	At Liverpool	Black Taggers, 450 ft.	30 0 0 —
Silesian	16	12 6 — 17 2 6	14 × 10'.	—	—
English Swansons	17	7 6 —	* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than 10 quoted above, and add 6s. for each X. To be paid 2s. per box below tin-plates of similar brands.	—	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than 10 quoted above, and add 6s. for each X. To be paid 2s. per box below tin-plates of similar brands.

REMARKS.—With one exception, the changes that have been effected in our markets during the past week have not been very great. Business, taken on the whole, has been quiet, although operators in some instances have been purchasing tolerably freely, and which has given an animate appearance to the markets for such metals. The shipping trade particularly keeps slack, and with but very slight symptoms of any immediate revival. Here and there enquiries are rather more numerous; but counteracting this arises from certain parts of India are less satisfactory, and report still lower prices, thus diminishing the chances of any improved business, while transactions are also made more difficult to effect by the drooping tendency of the Indian Exchange. It is certain that some branches of the trade are in an inactive state, and this has a depressing influence upon the markets generally; but yet, notwithstanding this drawback, there are some classes of metals which still receive a fair enquiry, and in which a moderate amount of briskness is reported, and consequently the markets, especially for manufactured metals, remain fairly steady, although at times there are symptoms of ease. Confidence does not appear to have been much shaken, but on the other hand seems well substantiated, which necessarily tends to implant a good tone, in spite of a little check which is occasionally visible through the slackness in the demand for some metals; and again, another favourable feature is that credit is good, and this is a matter which is likely to continue an important influence upon the future of the trade, since statistics show a large net decrease in the number of failures this year compared with last, and which is a matter that not only bears a large influence upon credit—for on the metal market there is very little credit given—but it also shows that the state of the trade of the country is more satisfactory, and business for the most part is conducted upon a sounder and more substantial basis.

These are matters which do not greatly affect the markets, but they have their influence, and be it ever so slight, when taken in connection with other favourable events, must do their part in helping to restore trade to its normal condition, and as the autumnal trade has been very disappointing, particularly so far as shipping business is concerned, it certainly does not seem too much to expect that a resuscitation will ere long ensue, and good credit and substantial confidence ought in the ordinary course of events to be the means of hastening that time. The monetary scare seems also to be vanishing, and as there does not appear now to be much chance of dearer money this difficulty, which was threatened some little time back, has been removed, and is not likely to stand in the way and prevent business from being restored to a thoroughly healthy condition.

COPPER.—During the past week the copper market has been rather quiet, and sales more or less difficult to effect. The market was strongest at the opening of the week, when the Chili charters for the first half of November were announced as only 1300 tons, which consisted of 650 tons bars and ingot, with 250 tons furnace material for England and 400 tons bars for the Continent. This quantity was extremely light, and under the customary fortnightly average, had the usual effect of implanting more tone to the market, made holders stronger in their quotations, and one or two buyers more ready to effect purchases; but buying generally did not improve, and sellers finding that to hold out for higher rates would avail nothing, but put a sure check on the demand, lowered their quotations in the hope of stimulating the enquiry, and thus rid themselves of their stocks. Buyers, for reasons which we shall hereafter state, only made purchases at reduced rates, considering the market in a too uncertain condition to warrant the effecting of transactions without some concessions in price. For instance, the actual demand remains very slack; India does not come forward and take advantage of the easier tendency of the market, and consequently the state of the trade is very dull. The deliveries for the first half of the present month have been very bad, and show a most unfavourable comparison with those for the corresponding period of last year. Fortunately the imports of Chili produced during the first half of the month have been light, so that the stock in first and second hands in Liverpool and Swansea has not increased, being, on the 15th inst., 22,671 tons, against 22,679 tons on the 30th ult. The limited deliveries testify to what a small business has been doing to meet the ordinary requirements of the trade, while the inanimate appearance of the market for some time past is an evidence of the small speculative business that has been carried through. According to the Board of Trade Returns, the imports during the first ten months of the current year have been 77,172 tons against 71,656 tons for the same time of last year, while the exports for the similar periods are 50,383 tons this year against 54,704 tons last.—In the price current last week Wallaroo should have been quoted 74s. to 74s. 10s., not 75s. 10s.

IRON.—There is not a very great amount of business doing in this metal, and prices continue steady. In general merchant iron orders are not plentiful, and in some cases symptoms of ease have been visible in prices. Shipping orders are still very scarce, the slackness in the export demand being the weakest point in the market. Merchants are very reluctant, if they do not positively refuse, to pay current rates, and, in many cases, having their wants well satisfied they hold off the market for still further reduced prices. For consumption, although the amount of business doing is not very great, yet a moderate number of transactions are re-

ported, and these, combined with some old orders the various works have in hand is what keeps the mills in fairly regular employment. The manufactured trade, therefore, will be seen to be without any particular change and we pass on to the market for the raw material, which, according to the following advices from Glasgow, has remained steady so far as Scotch pigs are concerned. Holders are by no means very willing sellers unless full prices are paid, and whenever prices have lately been reduced below 50s. extra buying has speedily taken place, which shows there are plenty of buyers at anything below that figure, and the consequence is that a speedy recovery has at all times followed. This is not surprising, for notwithstanding the general demand is not brisk, yet what is doing is sufficient to make a repeated favourable impression upon public stocks, and therefore, holders look upon any reduced prices as unnecessary occasions.

This week a very fair business has been transacted upon the Glasgow warrant market, and on Monday transactions were recorded between 49s. 10d. and 50s. 4d., while on Tuesday the price opened at this latter figure and receded to 50s. 1d., but improved again to 50s. 4d. On Wednesday the market was flat, and business was down to 49s. 11 1/2d., but closed for the day with buyers at 50s., and sellers near. Yesterday the market was shade easier, with sellers at 49s. 11d. and buyers 49s. 10 1/2d.; the closing quotation to-day being 49s. 11d. The shipments last week were again very good, although not quite equal to those for the same week of last year, being 12,399 tons, against 12,990 tons, or a decrease of 601 tons, and which makes the total shipments for the whole of this year 560,008 tons, against 510,316 tons for the same time of last year, and 602,158 tons for the similar period of 1880. There is one extra furnace in blast, the total now being 115, while the public stock has been further reduced by 33 tons, now amounting to 618,630 tons, against 618,469 tons last week. The imports of Middlesbrough pig iron from Grangemouth last week were 6553 tons, against 753 tons for the corresponding week of last year, or a decrease of 1300 tons, and which leaves a total decrease for the whole of this year compared with last of 55,284 tons. A steady feeling characterizes the Middlesbrough market, while prices are said to be moderately firm. The demand, however, has been rather small, and makers have continued to quote for No. 3 at 44s. 6d. to 45s., while some are said to have sold as low as 44s., which is the general quotation amongst second-hand sellers. In warrants there has been scarcely anything doing, as buyers would not pay more than 43s. 6d. Messrs. Connal and Co.'s stock shows a reduction of 106 tons for the week and amounts to 101,141 tons.

The shipments last week were not very large, being only a little more than 15,000 tons. The demand being quiet for manufactured, there is not much business doing, but manufacturers uphold their quotations at 61s. 12s. 6d. to 62s. 15s. for ship-plates. Common bars are offering at 62s. 5s., and angles at 62s. per ton. The report from Wolverhampton is more promising, and some makers state being better off for orders at the recent full advance in prices; but, taken on the whole, there is still only a slack enquiry for general merchant iron. Rods and strips are quoted at 62s. 15s.; bars at 62s. 10s. to 62s. 6d.; and sheets, for which there is said to be an increasing consumption, at 82s. 10s. for singles. Pigs are still neglected, and prices remain unaltered. Upon the Birmingham market prices are rather stronger, not so much, however, from a better demand, but more from a further advance which has been effected in wages. Marked bars continue in limited request, but a fair enquiry exists for sheets and gas strips. At Sheffield there is said to be considerable activity in the armour-plate mills, while some good orders are in hand for ship-plates. The wages dispute, which has for so long been threatening in this district, having been brought to a satisfactory arrangement, there is said to be no longer any fear of a strike taking place. The advices from New York of the 10th instant show no change in the state of the American market. Prices all round are firmly upheld, but no greater eagerness has been manifest to effect purchases.

TIN.—Prices for this metal have continued most variable and unsettled. The bulk of the business that has been done, and which has been very large, has been stocks changing from the hands of one holder to another, but at the same time it must be mentioned that the business doing for consumption has continued large, and the announcement of excellent deliveries for the half-month has, perhaps, been the principal means of causing so much briskness in the speculative demand. The market appears to be very unsettled, and since so much speculative interest exists it appears likely to continue so for some time to come. It is a matter of congratulation that the deliveries are kept up, as it still shows that, notwithstanding the high prices that are ruling compared with some few years past, present rates do not interfere with consumption. The great point to be considered is the future supplies, but this is a matter which must be left to time to disclose. For a long time past they have been rather light, and with good deliveries stocks have been kept sufficiently small as to be easily managed, but the question is whether current rates will not attract increased supplies. Hitherto supplies have been kept moderate by prices at the centres of supply being so much higher than those ruling here, and we have still to see whether this influence will continue, and thus help the "bull" operators in their efforts to sustain the market.

SPELTER.—A much better market, large purchases having been made upon the Continent. We quote ordinaries at 16s. 12s. 6d. to 16s. 17s. 6d., and specials at 16s. 17s. 6d. to 17s. 2s. 6d. per ton.

LEAD.—Leads continue low in value, and other descriptions without change, while a moderate amount of business is being transacted, some of the mills being reported even briskly engaged still with the orders in hand.

TIN-PLATES.—Steadiness is still the most prominent feature in this market, so far as relates to prices, while a fair business is also doing in both charcoals and cokes.

QUICKSILVER.—The importers of Spanish have accepted 51s. 16s. 9d., and considerable sales have been effected from second-hands at 51s. 16s. to 51s. 15s., at which there is a good demand. At San Francisco the price is maintained at 37 cents.

In the MINING SHARE MARKET the dealers have been chiefly engaged in the settlement of the usual fortnightly account, and general business has been rather dull with somewhat lower quotations. The mines dealt in have included South Caradon, West Kitty, Tincroft, Tankerville, Leadhills, West Crebor, Wheal Peevor, Gunnislake (Clitters), Killifreth, East Caradon, South Frances, West Caradon, Prince of Wales, New West Caradon, Devon Friendship, Bedford, New Caradon, and others.

Tin has been firmer this week, and no further decline has taken place in the standards for ore. Tin shares, however, have been comparatively quiet. Blue Hills are quoted 1 to 1 1/2; Carn Brea, 9 to 9 1/2; Cook's Kitchen, 36 to 37; Dolcoath, 71 to 73; East Pool, 50 to 52; East Blue Hills, 9s. to 11s.; Goodevere, 1 1/2 to 1 1/2; Killifreth, 4 to 4 1/2; Drakewells, 8 to 8 1/2; New Kitty, 2 1/2 to 2 1/2; North Blue Hills, 3s. to 4s.; South Caradon, 9 to 9 1/2; Kit Hill, 8 to 8 1/2; South Crofty, 11 to 12; South Frances, 9 to 9 1/2; Tincroft, 7 to 7 1/2; West Basset, 9 to 9 1/2; Wheal Peevor, 9 to 9 1/2; Wheal Agar, 7 1/2 to 18; Wheal Jane, 1 to 1; Wheal Kitty (St. Agnes), 1 1/2 to 2; Wheal Peevor, 4 1/2 to 5 1/2; Wheal Sisters, 1 to 1 1/2; Wheal Uny, 4 1/2 to 5; West Kitty, 13 to 14; this lode in rise in back of 72 fathom level is worth 16s. per fm.; 60 east of rise, 25s. per fathom; 60 west, 9s. per fathom; east, 10s. per fathom.

Wheal Grenville, 9 to 9 1/2; the accounts for the meeting show a loss on three months' working of 2s. The tin sold (65 tons) realised 41,982. During the past three months the agents have laid out a good deal on frames for the slime-floors, and hope to lay down several more, and in the present accounts there are also 12 weeks' charged against 11 weeks' returns. Wheal Basset, 9 to 10; at the meeting the accounts showed a loss on seven months' working of 34,567, and a call of 12s. per share was made. The tin sold (54 tons) realised 32,862. The prospects of the mine are reported as most favourable, and the returns of tin will be materially increased. The engine-shaft is now 9 ft. below the

ment of operations. All that is required is the necessary machinery to commence crushing at one, as he reports (after a residence on the property of over six months) the ore to be there, both in quantity and in quality (see his report in the prospectus); and arrangements are in progress for his leaving here on Dec. 17. Mr. E. Pooley reports that the late Captain Robotham stated that he believed the district in which the West Callao Mine is situated would, when developed, equal in richness the famed El Callao Mines in Caratal, as the various lodes were precisely of similar character. Besides, this district has so many facilities which the Caratal do not possess, that it cannot fail to give it many advantages. The roads are good, machinery and other requisites can be forwarded at all times and seasons of the year, the cost of transportation being only about one-third of that of the Caratal district—a most important advantage. The prospectus will be found in another column.

The Owen Vean and Tregurtha Downs Mines have been inspected and reported upon by Messrs. T. C. Kitto and Matthew Heslop for Messrs. H. R. Lewis and Co., of Bartholomew House. Their reports are advertised in another column. Mr. Kitto says: In justice to Cornish mining, I would like to point out that, although we may have to go abroad for our silver and gold, there are very few places in the world for a corresponding area that are equal to Cornwall for copper and tin. If a property corresponding to Owen Vean and Tregurtha Downs were to be discovered in America, Australia, or Africa, it would cause immense excitement; the ground would be apportioned in comparatively small sections, and its market value would be fully 20 times that of these mines. Mr. Heslop says: Immediately the mines are drained good returns of ore will at once be made from the old workings, besides the burrows contain a very considerable quantity of tin and copper, which could be dressed and made marketable while the mines are being drained. It is seldom, indeed, that such stores of mineral wealth can be so readily obtained as are indicated at the Owen Vean and Tregurtha Mines. Taking into consideration the vast wealth obtained from the working of the surrounding mines, and keeping in view the remarkable prospects that are indicated by the evidence which the shallow operations afford as to the richness of the lodes, and with due regard to all contingencies that may arise, I venture to express my opinion that the Owen Vean and Tregurtha Mines will equal the produce of the greatest mines that have been worked in Cornwall; and considering the comparatively small capital that will be required to further develop the various lodes, the profits should be extraordinarily large. The shareholders may justly feel proud of this great property.

Devon Great Consols, $\frac{5}{2}$ to 6; Devon Great United, $\frac{3}{2}$ to $\frac{5}{2}$; the half-yearly meetings of shareholders in these companies will be held at the London offices on Thursday next, on which day 915 tons will be sold from the former mine.

East Wheal Rose, 1 3-16th to 1 5-16th; a correspondent writes that "the dealers seem all agreed that this market is in a state of expectancy, and on the receipt of any news from the mine would have a sharp advance."

Kit Hill Great Consols, $\frac{3}{2}$ to $\frac{5}{2}$; the mining operations are progressing satisfactorily. The half-yearly meeting will take place on Thursday next.

South Devon United, $\frac{3}{2}$ to 1; good progress is being made in crossing north towards the lode in Pickston's shaft. The lode in the cross-cut north at the 110, east of Brook's shaft, has been intersected.

West Godolphin, $\frac{1}{2}$ to $\frac{1}{2}$; the drivages in the various ends progress favourably, laying open fair quantities of ground for tribute pitches. During the past week in costeanning the south ground in search for Paul's lode (which produced some good tin near the western boundary, but was eventually lost, and in West Great Work Mine to the east, large returns were made) the lode has been found, and a pit sunk, 15 ft., from which good stones of tin have been taken. At the bottom of the pit a cross-cut is being put through the lode. A fair sample of stuff taken therefrom gives a produce of 1 1/2 per cent., or 33 lbs. of tin to the ton of stuff.

Tresavean, 1 to 1 1/2; very little change is reported in this market. Transactions are restricted, pending any movement in the metal market.

West Seton shares have improved to 25 in consequence, it is stated, of an improvement for copper in the 216 end west. The meeting will take place on the 23rd inst. It is not expected that a call will be made.

Mounts Bay, 13-16 to 15-16; it is stated that "several large parcels of shares have been absorbed in this market, investors looking upon these shares at their present low price as a good investment to lock away."

Draekewalls, $\frac{3}{2}$ to $\frac{5}{2}$; as will be seen by the manager's report, several bargains and pitches for driving the different levels were set last Saturday. The value of the property and appearance throughout is very much improved during the last few months.

Old Shepherds, 1 to 1 1/2; this market is reported to firmly maintain the recent advance in price. It is said that several large parcels have changed hands for forward delivery, thus indicating the hope of higher prices.

East Caradon has receded on the settlement from 2 1/2 to 1 1/2, 13, but very quickly recovered, and close 1 1/2 to 2 1/2; it is reported that the mine continues to open up well. The two branches passed through in the 130 cross-cut have been opened on, and found to be coming together, as they get away from the cross-course in exactly the same way as the rich lodes have done in this and the adjoining mine—South Caradon. The drivage will not be continued on these branches, but the cross-cut forced on to cut more lodes, as the ground is granite favourable for making ore and progress. The 150 east on caunter is getting into more favourable ground as it approaches the cross-course.

Richmond, 7 1/2 to 7 3/4; this week's telegram states that No. 1 furnace has been shut down, and No. 4 started; the run was \$15,000 from 435 tons of ore, and the refinery yielded \$15,000 worth of dore bars. The superintendent's report (Oct. 23) states that the 300 west drift from ore stope (opposite east drift) has been run 7 ft. in ledge matter and some low grade ore, face in very hard limestone, unfavourable. The 300 south-east drift from south-west drift has been extended 12 ft. Total 142 ft. In hard favourable limestone. The 900 new north drift from west drift has been extended 26 ft. Total 125 ft. In favourable limestone. The 900 east drift from north drift from west drift has been extended 22 ft. Total 217 ft. In hard favourable limestone. The 900 north-west drift from north-east drift from east drift from station has been run 14 ft. Total 62 ft. In favourable limestone. The 1050 north-west drift from station has been extended 28 ft. Total 119 ft. In quartzite.

Ruby and Dunderberg, 2 to 2 1/2; new shares, $\frac{3}{2}$ to $\frac{5}{2}$ prem.; the chief work going on at the Dunderberg Mine is still developing below the 700 ft. level, where the indications continue favourable. The ground in the rise from the 300 ft. level, towards the Home ticket old workings, has become rather hard, only 12 ft. having been completed during the week, or 118 ft. altogether. The Home ticket surface work is going on satisfactorily. The week's shipments of ore were:—Dunderberg 36 tons, and Home Ticket, 18 tons = 54 tons.

Kapanga, $\frac{3}{2}$ to 1; the reports received by this mail are considered satisfactory. The manager advises that he has taken up some fresh ground adjoining from the Government, thus consolidating the property owned by the company and increasing the average on the run of the lodes. One piece of the new ground, we are informed, was about being purchased by some gentleman in London a few years ago for a considerable sum of money.

The Henriett Mining and Smelting Company have to-day declared a dividend of 2 per cent. on the capital of the company, payable on Dec. 1. A telegram from the manager at the mine, says—Cash received for 736 tons minerals, \$9750, equal to 1950L.

Yuba River, 1 to 1 1/2; advices received state that the clean-up is in progress; that heavy rains continue; that the prospects for next season are satisfactory.

Kohinoor and Donaldson, 1 3-16ths to 1 1/2; the usual weekly report from the mines, owing to delays in the American mails, has not yet come to hand.

Gold Hill Mines; directors have received telegram (Nov. 16) from Colonel Cochrane, the deputy-Chairman:—"Pumping at the Randolph Mine has commenced. The mill will start work to-morrow."

Californian Gold, 1 to 1 1/2; a telegram received this week from the mine by the directors states that the week's mill run was 320 tons; net value, 580L; ore sales, 100L.

Colorado, 1 1/2 to 1 1/2; the advices received from Mr. Ward will be read with considerable interest by the shareholders, as they show that not only is the product of ore improving, being 450 sacks for the week, but that the lode has been cut in the tunnel many fathoms west of the present workings.

In Lead Mine Shares there has been practically no improvement, although the lead market being considerably firmer there is no disposition to force sales. Tankerville, 7s. 6d. to 8s. 6d.; the applications for the preference shares are, it is said, coming in well, and the allotment will be made in a few days. Good discoveries of lead ore are being made at the mines. The managers report that in Tankerville the lode in the 232 east is 4 ft. wide, yielding rich ore, and widening. The 232, west of Watson's shaft, is worth 25 cwt.s. per fathom, and the lode in the winze in the 220 west is also worth about 25 cwt.s. per fathom. In Pennerley the 80, west of Warm Water lode, is 4 ft. wide, worth quite 5 tons of lead ore per fathom, and it is believed that this bunch is standing whole up to the 60.

Van, 5 1/2 to 6 1/2; the lower levels westward are looking well, and have

Gwern-y-Mynydd, 1 to 1 1/2; good progress is being made in sinking Treasure shaft, and the work is being continued with all speed.

improved since last monthly report, the 120 end being worth 2 tons of lead ore per fathom. No change elsewhere.

Roman Gravels, 9 1/2 to 10; the present value of the ore in the end of the 80 south is quite 10 tons of bright galena, and the 95 south is approaching the same run of ore ground. The various other points of operation maintain the values last given.

Leadhills, 3 1/2 to 3 3/4; the lode in the 30 fathom level, north of Wilson's shaft, is worth about 180 cwt.s., and below the 41 fathom level, Wilson's shaft, 120 cwt.s. The various other points of working are looking as well as at last report.

In the case of South Dolcoath Mine to-day (Friday), Mr. Justice Kay granted an injunction against Henry Lambert and the South Dolcoath Mine, their servants and agents, from removing or permitting to be removed, or selling or delivering over any of the plant, machinery, or effects, in or upon the South Dolcoath Mine. Leave being granted to serve the said Henry Lambert or the Dolcoath Mine with notice of motion for Thursday next.

The French Date Coffee Company appears to be falling into the hands of "wreckers." Shareholders cannot be too strongly reminded that whatever may be the worthlessness of a company with which they are connected it is far better to bear their first loss than place themselves in the hands of the law, and thus evidently double that loss; more especially should they avoid placing themselves in the control of those whose entire living is dependent on drawing or driving dissatisfied and stupid shareholders into litigation.

Messrs. Walker and Co., advertising agents, are removing to 27, Throgmorton-street.

QUICKSILVER.

TO THE 31ST OF OCTOBER, INCLUSIVE.

	1881.	1882.
Season's import entries, bottles, about	47,046	about 49,728*
Imports from Jan. 1 to Oct. 31	47,046	44,728
Exports	19,329	31,780
Imports for October	600	960
Exports for October	2,031	3,374
Price, 1881, about 67. 17s. 6d. per bottle; 1882, about 57. 17s. 6d. per bottle. The stock in London to October 31, 1882, roughly calculated, is about 97,600 bottles.		

* Including last December, Spanish.

London, Nov. 10.

J. BENNETT BROS

GREAT HOLWAY.—This mine continues to open up splendid courses of lead ore. Another sale of lead ore yesterday realised 11/2. 2s. 6d. per ton (30 tons).

NEW TRUMPET CONSOLS (TIN).—The report will be read with great interest. Should the lode in the Trenethick shaft continue to improve in depth as now, these shares will become of great value.

TANKERVILLE GREAT CONSOLS.—The 232 is worth 20 cwt.s. of lead ore per fathom, and improving. The winze in 220, 30 cwt.s.; and the rise and stope in 206, 20 cwt.s. The different points on north lode are producing 20 to 25 cwt.s. per fathom. At Pennerley the 80 west is worth 5 tons and the winze 3 tons. The agents state that it is quite plain there are considerable reserves of ore ground here, and it is their opinion that the coming year will show results which will be satisfactory to everyone connected with the company.

WEST WHEAL ROSE.—A sample of silver-lead ore taken from the surface at this mine has been assayed by Messrs. Johnson, Matthey, and Co., and gives 32.600 ozs. of silver to the ton of 20 cwt.s. This is the most positive proof possible of the great value of the lode as depth is attained, and is indicative of a successful career for this young mine.

TREVARREN UNITED.—Reports received state that at their Gover Mine they have cut a splendid run of tin ground, the lode being worth from 15L. to 20L. at present, and seeing the junction of the Gover and the great lode is near, it is expected something very good will be forthcoming soon. At the Parka Mine, also belonging to this company, there are 10 tribute pitches set, all producing ore in paying quantities. A parcel of tin is now ready for sale, and all other operations are proceeding most satisfactorily.

EAST WHEAL ROSE.—It is stated that there are sure indications of the nearness of Middleton's lode, which may be expected to be cut any day, and that the market is in a state of expectancy; for when it is cut it is anticipated the shares will have a considerable rise. The same informant says the stope on Inne's lode are maintaining their previous values, and others will be opened out as development proceeds. The 100 in. engine is being erected, and when complete the north part of the mine which was reported to be the richest, will be also available, adding considerably to the monthly returns of mineral.

DEVON FRIENDSHIP.—The report received this week shows how well the mine looks. Next week the agents will give a full account of the surface operations.

MOUNTS BAY CONSOLS.—It is reported the improvement at Trebarwith mine, mentioned in the Journal of last week and the week before, is fully maintained, and that the copper is of the same high standard—nearly double the value of that produced by any other Cornish mine. The steam stamps at Sydney Cove will soon be complete, and from this mine alone it is estimated the profits will be sufficient to pay a good dividend on the whole capital of the company.

BRATSBERG.—The managers state that the quantity of copper ore to be sent over for the past 12 months will exceed their estimate.

ELECTRIC LIGHTING.—Dr. Siemens opened the winter session of the Society of Arts on Wednesday by an address on Electric Lighting, which has the double merit of being a simple and intelligible, as well as authoritative, exposition of the subject. The views of Dr. Siemens as to the relative merits of gas and electricity, as expounded by him at the last meeting of the British Association, have given rise to a good deal of controversy, and it was due to himself and to the public that he should explain them more fully than he did on that occasion. He has done so in the address which he delivered on Wednesday as Chairman of the Council of the Society of Arts, and the fullness and clearness of this explanation leaves nothing to be desired. He discusses with a thorough knowledge of his subject the question of cost and the relative lighting power of the two illuminants; and though the conclusions he draws will not be very encouraging to that unfortunate class or the community who have put their money into electric lighting companies on the faith of the glowing promises of their several promoters, they are most reassuring as regards the public. The competition between electric light companies and the gas companies will compel the latter to supply a better and cheaper light. It will also direct attention to the necessity of utilising more fully than has ever yet been attempted gas for heating purposes and as a motive power. Dr. Siemens reverts to the recommendation he made some time ago, that gas should be supplied in two qualities—one in its crude form, for heating and as a motive power; the other, purified and adapted for illumination. If thus treated, there is still a profitable future for gas. After, however, all is said, Dr. Siemens admits that as the light of luxury electricity must win. The electric light, he says, possesses great and peculiar advantages for lighting our principal rooms, halls, and warehouses; but he does not agree with those who believe that it will entirely supersede gas, even as an illuminant. The question of cost is still a serious one. The laying down of electric plant Dr. Siemens estimates as more than double that of establishing gasworks. On the other hand, the cost of maintenance is fully one-third less. It is probable, however, that discoveries will be made which will reduce the cost of the electric light. One thing is certain, we are on the threshold of a great improvement in respect to the lighting of our houses and streets, and, possibly also, of the substitution of gas for coal as a motive power for driving machinery; and that that improvement is one which will be wholly to the advantage of the community at large. Dr. Siemens stated that it would cost 14,000,000L. to lay down the requisite plant to supply the whole of London with the electric light. If all the towns in Great Britain and Ireland

were to demand to be supplied with the new illuminant the capital outlay required would be 64,000,000L., not including 16,000,000L. for lamps and internal fittings. After this expenditure had been incurred the relative cost of electricity to gas of the same illuminating power would be as 29 is to 22.

CARNARVONSHIRE GREAT CONSOLS.—This property has much improved during the past week, the east and west lode having formed a junction in the bottom of the diagonal shaft, showing two branches which will produce 3 tons of lead per fathom for the length of the shaft.

LEAD ORES.			
Date.	Mines.	Tons.	Price per ton.
Nov. 10	Minera	50	£ 9 5 6
	ditto	50	9 4 6
14	Central Foxdale	110	14 5 0
	Lisburne	60	10 7 0
	Cwmystwyth	30	8 11 0
	East Darren	40	11 18 0
16	Pierrefitte	60	12 16 6
	Frongoch	60	8 0 0

BLEND E.			
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Notices to Correspondents

• Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt ; it then forms an accumulating useful work of reference

Received.—"Shareholder" (Cootacovil)—"W. J." "Shareholder" (New Callao)—(Pontypridd)—"J. W. E." (Cornhill)—"R. N." (Hamburg)—"F. S. S."—"A. H." (Jaggersfontein)—"Old Reader" (Bridport)—"J. C. J."—"Shareholder" (East Botallack)—"Interested"—"Old Reader" (Dublin)—"B. S." Next week—"J. H. A."—"T. J. H."

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, NOVEMBER 18, 1882.

THE COLLIERY EXPLOSION AT CLAY CROSS.

In what are termed the best managed and the best ventilated mines there are frequently some one thing that has been overlooked and which leads to a loss of life. The ventilation of a mine may be all that could be desired, there may be entire freedom from fatalities for years, so that the system of working is looked upon as near to perfection as it possibly can be; but, in the midst of this assumed security, a crash comes with the velocity of a flash of lightning, and numbers of men are hurled into eternity without a second's warning. This appears to have been the case at the mine belonging to the Clay Cross Company, where the explosion took place on the 7th inst., resulting in the loss of 45 lives. The mines belonging to the company have, no doubt, been well managed, for very few accidents have taken place in them. Yet, that some of them were troubled with gases is shown by the fact that in 1865 there was an explosion in one of them by which eight lives were lost. Since then, however, so little gas was met with and so well was the ventilation managed that many of the men were allowed to go about with naked lights, and the probability is that if ever the cause of the late explosion is traced it will be found that some one of these led to the loss of so many lives. It is said that matches and pipes have been found where the deceased men were struck down by the terrible blast. Admitting this to be the case, and that some of the men now and then indulged in a smoke, they had before them the example of the open lights, which were more dangerous. Gas, indeed, will explode at a lighted match, but not at fifty or a hundred tobacco pipes were they all alight at the same time. But some of the men, we are told, used safety-lamps, Clanny's and Davy's, so that there was a mixed system in force, which in itself is a danger, for whilst one man may go carefully into a working place with a safety-lamp, another, less thoughtful, will rush into danger with an open light, despite all rules that may be framed for his guidance. The naked light, too, will fire the gas, whilst the lamp will give some warning of danger, even when in an explosive mixture. In the case of the safety-lamp, if the air contain fire-damp in the proportion of one-thirteenth to one-fifteenth the flame will increase in length and size, and by drawing down the wick into the reservoir in a manner greatly to diminish the height of the flame, the point will be at once crowned with a pale blue flame. But if the gas exists in the proportion of one-twelfth the cylinder of metallic gauze will be filled with a blue flame, and if the gas forms a third of the whole volume the lamp goes out, and the miner should then leave the place. When the gas forms one-eighth or one-ninth of the entire volume then the mixture is in the highest degree explosive. It will thus be seen that the safety-lamp to some extent, at least, is an indicator of fire-damp, and if watched by the miner or used by him in putting it to the roof of his working place he would quickly ascertain the state of the air around him, and whether there was any quantity of gas likely to interfere with his operations. Thus, the naked light would explode the gas where the lamp would indicate its presence in some of the ways we have pointed out. The explosion at Clay Cross appears to have taken place in one of the working places towards the boundary, and to have come backwards a distance of some 1100 or 1200 yards to the bottom of one of the shafts, to the top of which, a distance of about 200 yards, bricks and other debris were forced up for a considerable distance above the surface, thus showing the great force of the blast, as it is termed.

The workings having been examined to a considerable extent, the prevailing opinion now is that the cause, in the first instance, was a heavy fall, which liberated a large body of gas. But this must have come in contact with a naked light, and the question then is, what and where was the light? Was it a match or the ordinary open lamp which was allowed by the managers? But the probability is that this important point will never be cleared up, as those who could do so, most likely, are numbered with the dead. But there is the fact that, in addition to safety-lamps, open or naked lights were also in use, and this we consider, to speak of it in the mildest terms, was a great mistake. It may be quite true, as stated, that the mine was considered to be one of the safest and best ventilated—and the evidence given in nearly all occasions where an explosion has taken place goes to the same extent—throughout the entire district, and that scarcely any gas had been met with during the eight years the colliery had been worked. But this is contrary to experience of the black shale or Silex seam, the one that was being worked. It is known to give off a great deal of gas, at least in some places, and in the adjoining district of South Yorkshire it has caused a considerable loss of life from explosions. At one colliery, in particular, outbursts have taken place that have filled the whole of the workings, and the gas has continued to ooze out for many days after it first appeared. On one of these occasions there were upwards of 400 men in the pit, all of them having the best safety-lamp, the Geordie—the one in which the men had the most confidence. All these lamps were put out—such being one of the peculiarities of the Stephenson lamp that it will be extinguished if the gas forms a greater proportion of the mixture than one-twelfth. Although the lamps of the men referred to were put out, they all managed to reach the bottom of the shaft, and were at once drawn up. On that occasion, had there been a naked light in any of the working places, or even in the roads, the probability is that not a man would have escaped with his life. This shows what a dangerous seam of coal the black shale is, and how necessary it is that it should be worked in the safest manner, and that too much reliance should not be placed on the ventilating arrangements. An outburst of gas might take place, completely overpowering the most ample amount of air passing through a mine, and the principal precautionary measure that can be adopted to ensure the safety of the workmen is the placing in the hands of all of them the best of safety-lamps. But for an open light to be allowed to be used in a mine working such a seam appears

to us to be highly reprehensible, even if guarded by the strictest of provisions. We may also be allowed to question whether the Davy lamps, which some of the men had at times, are really the best for working in a seam of coal which is of a gaseous character, seeing that, in the presence of a certain volume of gas, it is filled with a bright flame, in the middle of which the flame of the lamp disappears, and the gauze rapidly becomes red-hot. But, under any circumstances, it has certain properties about it that are calculated to ensure safety under certain circumstances, whilst the naked light simply brings about a catastrophe from which, in most instances, it is impossible to escape. It appears that some of the volunteer explorers who went into the mine immediately after the explosion suffered greatly from the carbonic acid, or after-damp; and in drawing attention to this last week we noticed the advantages that would be derived from having two or three of the dresses patented by Mr. FLEUSS, by which persons could enter into a place filled with gas with impunity. But we may now state that there are artificial respirators which could be advantageously used in first penetrating a mine after an explosion, and there could be no difficulty in having a few of these at coal mines in case of emergency.

We some time since drew attention to the composition of coroners' juries summoned to enquire into the causes of explosions in mines which have resulted in a number of persons being killed. Those views are evidently shared in by a considerable number of persons residing in the vicinity of the place where the explosion took place, for it is stated that a meeting has been held in Clay Cross for the purpose of drawing the attention of the Home Secretary to the fact that on the jury summoned to enquire into the catastrophe there is not a single person who has any knowledge of, let alone practical experience in, connection with mining. The jury consists of three butchers, two grocers, two drapers, a blacksmith, plumber, farmer, builder, and a gentleman. It is certainly time that some alteration was made in the present system of empanelling juries for enquiring into mining catastrophes; and now that the attention of Sir W. HARDCOURT has been called to the unsatisfactory manner in which such juries are formed, we have no doubt that a change will be made, by which some of the persons summoned will have some knowledge of mining matters.

IRONSTONE AND COAL IN LINCOLNSHIRE.

We recently drew attention to the discovery of some extensive deposits of ironstone near Sleaford, close to the new railway belonging to the Great Northern and Great Eastern Railway Companies. For some years past, it may be said, a good deal of iron ore has been mined within less than two miles of the City of Lincoln, it being the richest in metallic iron of any found in the county, and with but little limestone, of which there is a great deal too much in that being raised in the Frodingham district. For some time past it has been considered that the ore would be found for a considerable distance to the south of Lincoln, and so far back as 1874, when writing on the subject of the Northamptonshire stone, after having visited most parts of that and the adjoining counties, we expressed the opinion that the ores of Northamptonshire would be found to run into the county of Rutland and continue into Lincolnshire, where they would join with the same measures in that county. Our opinions have since been verified, for ironstone is now being worked in the small county of Rutland, and the beds evidently pass onward, as we have stated. Still more recently we have drawn attention to extensive deposits of similar ore on the estate of the Duke of MARLBOROUGH, near to Woodstock, and where blast furnaces are about to be erected. The ores in those counties are similar in almost every respect, and no doubt form one continuous field. They are in the lias and oolite formations, which extend from the north-east coast of Yorkshire to the south coast of Dorsetshire, and there is every reason to believe that the deposits of iron extend somewhat continuously throughout the entire distance, whilst similar deposits are now being worked at Westbury, in Wiltshire, quite close to the line of the Great Western, and where there are now seven furnaces, but only three in blast. At the present time there are 18 furnaces in Lincolnshire, 15 being in blast; but they are all situated close to each other in the neighbourhood of Frodingham, that locality being the nearest to the South Yorkshire coal field, from which the principal portion of the fuel for smelting is derived. But so far as regards the deposits at Digby, near Sleaford, are concerned, there would be no difficulty in obtaining the necessary fuel, seeing that the Great Eastern is cultivating the coal trade along the extent of the line, having now direct access to the South Yorkshire coal field by its running powers over the Great Northern to Doncaster; indeed, that locality is far more favourably situated for smelting iron than is the case as regards either Northamptonshire or Oxfordshire so far as proximity to a coal field is concerned.

But there does not appear to be any reason why Lincolnshire should be dependent for fuel upon South Yorkshire or any other district, seeing that there is no reason for believing otherwise than that there are valuable deposits of coal in the county itself. A few years ago we visited a place called Epworth, where boring operations were being carried on in the expectation of finding coal, but the sinkers never went within a measurable distance of the magnesian limestone, under which the coal measures rest. Some time since borings were also made at Searle, six miles north-west of Lincoln, by a party of Lincolnshire gentlemen, in the expectation of finding coal. The carboniferous formation was reached at a distance of 2035 ft., but for some unexplained reason was not continued. But we do know that the great Midland field from its southern point, close to the town of Nottingham, runs in a north-easterly direction, and goes into Lincolnshire under the liassic and oolitic formations. To reach the coal there it would be necessary to penetrate through the magnesian limestone, which in the neighbourhood of Doncaster will be about 360 ft. thick. But the measures having been proved under the magnesian limestone at Shireoaks, there is no doubt they will also be found in the position which Mr. HULL has placed them—that is extending to within a short distance of the City of Lincoln. Mr. JOHN ROSEBY, the engineer to Mr. R. WINN, M.P., the owners of the vast deposits of ironstone in the Frodingham district, and who paid a great deal of attention to the subject, informed us that there was scarcely any doubt of the coal measures being near to the ironstone deposits, and it is rather surprising that some effort has not been made to prove in what direction the coal measures of the Midland field trended out after leaving South Yorkshire and Shireoaks. But with the prospect of new fields of ironstone being opened out, and the consequent introduction of capital, we may expect that some effort will now be made not only to prove the extent of the new ironstone field, but how far the coal measures extend into Lincolnshire.

OUR RAILS ABROAD.

The most cheering, and, at the same time, the most remarkable feature in the returns now available in regard to the exports of our iron and steel rails in October, is the improvement in the demand for them upon American account. Notwithstanding the severe duties imposed upon British rails entering American ports, and notwithstanding the great progress which has undoubtedly been made during the last three years in the development of American metallurgical industry, it is none the less a fact that 23,431 tons of British steel rails and 211 tons of British iron rails were exported to the United States in October this year, the corresponding exports in October, 1881, having been 14,327 tons of steel rails and 4980 tons of iron rails, and in October, 1880, 14,092 tons of steel rails and 3573 tons of iron rails. Notwithstanding the contraction in the demand for our iron rails in the American Republic this year the fact is none the less clearly established that we sent the Americans in October 23,642 tons of rails of one kind or the other, while the corresponding deliveries in October, 1881, did not exceed 19,308 tons, and in October, 1880, 17,665 tons. The improvement in the demand for our steel rails on the other side of the Atlantic in October goes a long way to account for the increase established in the exports of the month in all directions, which amounted to 82,569 tons, as compared with 61,446 tons, and 40,444 tons in October, 1881, and October, 1880, respectively. The external demand for our iron rails has

been very languid this year, and only amounted in October to 2188 tons, as compared with 7370 tons in October, 1881, and 6705 tons in October, 1880. But after allowing for all this the combined exports of our iron and steel rails in October this year were 84,697 tons, as compared with 68,816 tons and 47,149 tons in the corresponding months of 1881 and 1880 respectively. We seem to be sending scarcely any rails at present to Russia, but the deliveries have increased to Italy, to which 6695 tons of our steel rails were forwarded in October. There has also been some business doing in steel rails on British Indian account, 5274 tons having been dispatched to our great eastern dependency in October, while the corresponding exports in October, 1881, and October, 1880, did not exceed 2796 tons and 1279 tons respectively. The Australasian colonies took 10,819 tons in October this year, against 10,969 tons in October, 1881, and 10,718 tons in October, 1880.

So much for the exports in October. When we come to deal with the shipments for the first 10 months of the year we can but regard them as decidedly satisfactory. It is true that the exports of our iron rails in the 10 months ending October 31 this year did not exceed 42,708 tons, as compared with 108,606 tons in the corresponding period of 1881, and 116,568 tons in the corresponding period of 1880. But, on the other hand, the exports of our iron rails to October 31 this year increased to 635,124 tons, against 512,370 tons in the corresponding period of 1881, and 408,280 tons in the corresponding period of 1880. The decline in the shipments of our iron rails in the first 10 months of this year will be seen to have been 65,898 tons; but it is not a little singular that this decline was wholly accounted for by the falling off in the demand on American account, the American demand to October 31, having been less by 67,352 tons, than in the corresponding period of 1881. The increase in the demand for steel rails has, we may fairly assume, arisen to some extent from the decline in the consumption of iron rails. There is still a great demand for new railways in the United States, and in other foreign countries, as well as in the most important of the British Colonies, and as these new railways must have rails of some kind steel rails are naturally laid down upon them if iron rails are deemed unsuitable. This is so obvious a conclusion that we need not further dwell upon it. At the same time the increase in the external consumption of our steel rails is not by any means fully accounted for by the decrease in the demand for our iron rails, and it is a little satisfactory to observe that the augmentation in our steel rail exports this year has not been occasioned by any special increase in the American demand; but has been due to the progress of the consumption in several other directions. This we consider a subject of congratulation, as when industry is dependent upon any one market it cannot be said to be in an altogether solid or encouraging condition. The utmost that can be said of the demand for our steel rails in the United States is that it has remained about stationary this year, 162,506 tons of British steel rails having been forwarded to the Great Republic in the 10 months ending October 31, as compared with 171,100 tons in the corresponding period of 1881, and 106,958 tons in the corresponding period of 1880. We forwarded, however, 58,463 tons of our steel rails to Italy in the first 10 months of this year, as compared with 22,701 tons in the corresponding period of 1881. Brazil, again, took 35,899 tons to October 31 this year, as compared with 27,760 tons in the corresponding period of 1881. The vigour impressed upon the construction of State railways in British India also involved a consumption of 73,726 tons in that great dependency in the first 10 months of this year, the corresponding consumption in the corresponding period of 1881 having been 29,518 tons. Finally, the miscellaneous external consumption of our steel rails in the first 10 months of this year amounted to 136,798 tons, as compared with 60,833 tons in the corresponding period of 1881.

COLLIERY ENGINEMEN.—What constitutes being in attendance for the purpose of working the engine whilst persons are below ground was brought before the magistrates at Blackburn on Nov. 9. The question arose out of a fatal accident which had occurred by the overwinding by a non-authorised engineman at the Lower Darwen Colliery, wherein it had at the inquest been contended that an engineman at home, in bed, 300 or 400 yards away from the pit, and who had his own day's work to attend to, was in accordance with the requirement. The magistrates considered the rule had not been complied with, and fined the agent, Mr. George Howarth, 10/-, and the costs. Mr. Charles Holden, solicitor, Bolton, appeared on behalf of the Government, and Mr. Polding, solicitor, Blackburn, for the defendant. Mr. Polding stated in the Court that the owners of the colliery had undertaken to provide for the widow, and it has since been announced that, upon the recommendation of the Inspector of Mines, the Secretary of State has been pleased to direct that the penalty imposed shall be paid over to her.

TREVITHICK MEMORIAL.—The preliminary meeting was held at the Society of Arts, on Wednesday, in accordance with the announcement in last week's Journal, and notwithstanding the shortness of the notice, was very influentially attended. Letters were read from Cornish engineers and others concurring with the views expressed, that Trevithick has been improperly neglected, and recognising the appropriateness of the present time for taking action in order that the memorial may be inaugurated on the fiftieth anniversary of his death. Heartily co-operation was promised by those present, and it was resolved that a committee be forthwith formed, Capt. John Davis being appointed honorary secretary. From the manner in which the proposition has been received both in London and the country the movement promises to be very successful. The names of the committee will be published in next week's *Mining Journal*.

MINING DISPUTES.—Replying to the enquiries of a correspondent regarding mining disputes and their mode of settlement, the Right Hon. A. J. Mandella, M.L., remarks:—"I am of opinion that local courts of arbitration in which employers and employed are equally represented are better than any general scheme embracing an area so large that periodical attendance at the council would be costly and inconvenient. The North of England iron trade has just such an association for arbitration and conciliation as I would recommend should be established for the various mining centres of the United Kingdom. The sliding scale principle does not in itself embody the views I recommend. I sincerely approve the establishment of a sliding scale when it is agreed to by both parties, but in the working of it difficulties will occasionally arise which, in the absence of a court of arbitration and conciliation, may end in strife. When a court is established and periodical meetings are held differences are diverted or adjusted as they arise."

NEW MINING INDUSTRY IN THE NORTH.—At the present time the spirit of enterprise in the North of England is showing itself in several ways, but all of which are intended to develop new sources of industry that will find profitable employment for large numbers of workpeople. It is now understood that several capitalists are negotiating for the lease of a considerable tract of mineral ground in the Rosedale district for the purpose of working the jet and alum shale. Jet, it may be said, has been principally worked in the neighbourhood of Whitby, but for some years it has been a scarce article, although the demand for it is good. It was considered at one time that the jet was a species of coal and belonged to the lignite group, but it is now thought to have been formed as a distillate from the containing rock. Originally it was principally obtained along the cliffs, but these workings have been all abandoned, and it has been found on the hill sides in the Cleveland district. Owing to its scarcity the price of jet has increased considerably, and its value according to quality is estimated at from 30/- to 120/- per ton. It therefore follows that if only a moderate quantity is obtained there must be a large profit. In addition to the jet it is proposed to work the alum shale which is found in connection with it, and which, being of a highly bituminous character, contains petroleum as well as alum. The shale indeed is so rich in oil that if ignited it will burn with a bright light, and some of it when exposed to the atmosphere actually takes fire, when it assumes a reddish hue caused by the iron which runs into it. It is also stated that the water flowing through the shale becomes so impregnated with alum that it destroys all vegetation it becomes connected with.

Persons well acquainted with the Rosedale district state that the jet found on the western side for quality can scarcely be surpassed, whilst there is every reason to believe that the quantity is considerable as well. In getting the jet it is proposed to utilise the shale that has to be gone through in reaching the former, and from which the oil will be extracted. At the present time shale is raised in the West Riding, and from this refuse material, as it may be called, oil in sufficient quantities to ensure a good profit is obtained. There is therefore good ground for believing that the new enterprise, backed, as it will be, by capital and spirit, will be successful and of considerable advantage to the district where the operations will be carried on.

MINING LAWS OF FRANCE AND BELGIUM.

The importance of the mining industry to the welfare of a nation is so great that a knowledge of the laws by which it is regulated is of paramount necessity, not only to those actually engaged in mining but to all interested in districts in which it is carried on, especially as it not unfrequently happens that even companies engaged in mining and colliery operations have privileges and duties which do not affect other members of the community. In France and Belgium this observation especially applies, so that the very valuable treatises just completed by Dr. Emile Delecroix—1. *Commentaire de la Loi du 27 Juillet, 1882, portant révision de la Loi du 21 Avril, 1810, concernant Les Mines suivi d'une Etude sur les Chemins de Fer d'embranchement des Mines en France et en Belgique.* 2. *Traité théorique et pratique de la législation des Sociétés des Mines et spécialement des Sociétés Houillères en France et en Belgique.* Par Emile Delecroix, docteur en droit, avocat du barreau de Lille, London : Tribéner and Co., Ludgate Hill—will be widely appreciated. The commentary which displays great erudition throughout is admirably arranged for both study and reference. After an interesting sketch of the history of the propositions from time to time made for the revision of the mining law of 1810, the author renders his commentary unusually clear and comprehensive by giving in each case the repealed and the new section on the same page before commencing his comments. The suggested modifications were almost without exception in the direction of giving greater privileges to the miners, the importance of their industry to the community generally being fully recognised and although, as in all reforms, there were conflicting interests which had to be considered, a means has usually been found of affording the increased protection demanded by the miners without seriously interfering with the privileges of those opposed to them. Taking for example Article 11, it is found that whilst the old law prevented the sinking of shafts and the like within 100 metres of habitations and their appurtenances the new law reduces the distance to 50 metres, but as Dr. Delecroix points out the new law removes an important subject of controversy by altering the wording from "walled enclosures, courts, or gardens" to "walled enclosures, courts, and gardens," and under the new law the prohibition only extends to pits and levels, but does not prevent placing machinery or workshops within the 50 metres. All other points of difference between the old law and the new are discussed with similar clearness, so that whether the reader be or be not a professional man he will acquire knowledge with equal facility from the volume.

The other volume relating to the law of mining companies and colliery companies is equally carefully arranged and explicit. Dr. Delecroix treats of the subject in two parts—ancient law and modern law. In the section bearing upon ancient law there are chapters on the coal mining legislation of ancient France, and on the principal rules of the coal mining associations of Hainault and of Liège, and in the section on modern law he treats of the general character of associations formed for working mines, of the civil characters of mining associations, of shares in mining companies, of the internal arrangements of the companies, of liquidation, and so on. It is claimed that the book fills a field not hitherto occupied. Referring to civil associations it is universally admitted that those formed for the working of mines, and especially colliery companies form, so to speak, a distinct class. Ancient customs are recognised, and modes of dealing are followed which are unknown in other branches of commerce; indeed it is acknowledged that numerous legal decisions have established the principle that associations formed for the working of mines, and especially for colliery operations, "belong to an altogether special category," and that they constitute associations "*sui generis* which differ essentially from the ordinary association regulated by the Civil Code." Dr. Delecroix has evidently given much care and attention to every point which he discusses, and the result is that he has produced a work which so far as can be judged from the thoughtful reading of it—for in all books of this kind experience in using it in the courts is the sole infallible test—may be thoroughly relied upon. There can be no doubt that Dr. Delecroix's volume will prove to be of general utility.

THE MINERAL RESOURCES OF IRELAND, AND THEIR DEVELOPMENT.

That Ireland possesses enormous mineral wealth is now very generally acknowledged, and it is equally recognised that the country is extremely poor in the means of transport and in capital, without both of which the development of national industries is practically impossible. The importance of improved railway communication is now beginning to be recognised, and the actual aspect of the case is very accurately shown in a communication of Mr. George Preston White, C.E., to the Skibbereen Eagle, wherein he very truly remarks that the all-absorbing topic of land tenure in Ireland seems to have diverted attention from subject which would greatly aid the solution of this very difficult problem—the development of the vast and varied industrial resources of the country. There is a very general but erroneous impression that Ireland's almost sole resource is agriculture. Lord Beaconsfield attributed the ills of the country to its being surrounded by the melancholy ocean; but he omitted to mention, or, perhaps, was unaware of the fact, that it was also surrounded by some of the finest natural harbours in the world, by extensive fishing grounds, and inexhaustible supplies of seaweed, coral, sand, and other valuable manures. Unfortunately these fine harbours are without harbour communication, and in some cases scarcely even accessible by road. Amongst the greatest wants of Ireland are railways, roads, arterial drainage, the reclamation of waste lands, the fishery piers around the coast; and until these are supplied there is little prospect of the resources of the country being developed. Even the existing lines of railway have required some 300 Acts of Parliament, and, owing to their being in the hands of numerous small companies, are most expensively worked.

In a word, Mr. Preston White's suggestion is that the State railway system, which has done so much good to the people of other countries, should be introduced into Ireland. He recommends that the Irish railways should be purchased by Government, and cheaply constructed extensions made through the districts urgently requiring them. It was recently stated in the Times that the carriage of goods from Chicago to Liverpool was only 10s. per ton. Compare this with the cost of carriage in the United Kingdom. State railways have done much to develop the resources of Belgium, France, India, and other countries. And if the Government have considered it politic to give a guarantee on about 150 millions sterling for railways and works of irrigation in India, might it not be prudent to do something in the same way for Ireland? Countless millions have been spent on wars and armaments, which have done nothing towards developing the resources of the country. There is a perfect plethora of capital seeking investment at this moment. The public for a time have got a surfeit of Turkish bonds and other so-called securities; it would be, therefore, an opportune time to employ capital for reproductive works, which could be raised by Government at about 3½ per cent., and if the example were once set doubtless private capital would follow such a good example. One of the greatest wants, he adds, is cheap transit; and, judging from the economical and effective way the post-office and telegraphs are worked by Government, there is no reason why railways should not be worked equally effectively. Without roads and railways it is puerile to talk of developing the

agriculture, the reclamation of the waste lands, the fisheries, mines, and other latent resources of the country.

THE METEOROLOGICAL SOCIETY.

The opening meeting of the session was held on Wednesday, at the Institution of Civil Engineers, Mr. J. K. Laughton, F.R.A.S., President, in the chair. Eleven new Fellows were elected—Rev. J. Brunskill, F. B. Backland, C. F. Casella, W. H. M. Christie, F.R.S., A. Cresswell, R. S. Culley, C. Morris, O. L. O'Connor, H. Parker, F.Z.S., A. Rowntree, and D. R. Sharpe.

The papers read were:—

1. "On Certain Types of British Weather," by the Hon. Ralph Abercromby, F.M.S. The author shows that there is a tendency of the weather all over the temperate zone to occur in spells, associated with certain types of pressure-distribution. In Great Britain there are at least four persistent types—the southerly, the westerly, the northerly, and the easterly. In spite of much fluctuation one or other of these types will often continue for weeks together, and tend to recur at the same date every year. The value of the recognition of type groups is shown in the following ways:—(1.) They explain many phenomena of weather and many popular prognostics: (2.) In some cases they enable forecasts to be issued with greater certainty and for a longer time ahead; (3.) We can by their means correct statistical results, by giving the real test of identity of recurrent weather, which no single item, such as heat, cold, rain, &c., can do; (4.) They enable us to treat such geological questions as the influence of changing distribution of land and sea on climate in a more satisfactory manner than any other method.

2. "On the use of Kites for Meteorological Observation," by Prof. E. Douglas Archibald, M.A., F.R.S. In this paper the author advocates the use of kites for meteorological observation, and describes the mode in which they may be best flown so as not to be mere toys but scientific instruments, capable of ascending to great heights, remaining steady in currents of varying velocity, and of being manipulated with ease and rapidity by the observer.

3. "The Meteorology of Mozafferpore, Tirhoot, 1881," by Charles M. Pearson, F.M.S.

THE MINERAL RESOURCES OF IRELAND—No. IV.

BY THOMAS TONKIN, M.E.

In the County Kerry, near Kinmare, at a place called Ardtrulla, a copper ore mine was opened at the junction of the clay-slate and limestone formations; the lode was found to be 5 ft. wide; it produced yellow copper ore, and the veinstone is composed of quartz and calc spar. Also at Mucross and Ross Island, at the Killarney Lakes, copper mines were worked about a century ago; but I have not a sufficient knowledge of this district to enable me to make more than a few passing remarks. Of the beauty of this country and the magnificence of the scenery of this lake district, and the majestic grandeur of the MacLaidy Rocks and Mangerton Mountains (which latter stand 2633 ft. above the level of the sea), I need not write—they are already well and widely known, and oft described in more glowing terms than I can express; therefore, I shall proceed with my brief description of the mineral treasures of other portions of the country.

The Munster coal field claims our next attention; it occupies large portions of the counties of Cork, Kerry, Clare, and Limerick, and its superficial extent is regarded as the largest development of the coal formation in the kingdom. Six beds of anthracite coal have been discovered in this coal field, three of which have been worked, and have been found each to vary from 2 to 3 ft. in thickness, and the quality of the anthracite is considered excellent. It is a peculiarity of this coal field that the country is considerably tilted and disturbed in various places, often dislocating the coal seams, and rendering their position and incline in some localities to be different to what they are found in others.

At Duallow, in Cork county, the Irish Mining Company have successfully worked the larger seams of this formation for a great number of years, and in some other places limited operations have been carried on, the coal having been found in all four counties under almost as favourable conditions as at Duallow.

The Tipperary coal field is small, though almost a counterpart of the Munster coal field in regard to quality of coal, size of seams, and physical features of the country. Two workable seams have been discovered. The alternating beds of sandstone and shale which constitute the coal formation of both the Munster and Tipperary coal fields, resting on the upper limestone, naturally occupy elevated positions, and consequently afford considerable facilities for working out the seams. The coal formation of Tipperary is 20 miles long, and averages, perhaps, 5 miles wide; but Limerick and Tipperary are rich in other hidden treasures. Near the Limerick Junction Railway at Oola Hills a number of lead ore lodes have been discovered at and near the contact of the clay-slate and limestone formations. There is one very important contact vein at this place which, when thoroughly opened up, will most likely become a very rich mine. Lead ore is seen in some places in paying quantities a few fathoms beneath the surface. There are many other veins in the same property of a valuable nature, most of which are close to or junction with the contact vein just named. These latter are fissure veins traversing the limestone, and from the fact of most of them carrying strong elvan courses on the footwall, the theory will hold good in this instance that the Oola Hills have been elevated to their present position by volcanic action, producing at the same time cracks and fissures which, admitting molten matter from beneath, and this matter having cooled and contracted, formed the igneous rocks of which I speak, leaving the chasms and fissures produced by the cooling and contraction to be subsequently in the beautiful and wise order of Nature, filled up with sparkling ore, sulphate of baryta, carbonate of lime, or calc spar and quartz, and now constitute the important and valuable group of lodes therein contained. Chemical action and reaction are silently though surely going on, and to the solvent nature of acids, &c., and reacting agencies of other chemical solutions and substances we doubtless owe the existence of mineral veins and deposits. Viewed in this aspect, can there be little doubt but that the most ponderous and precious metallic substances will have become precipitated, and occupies deeper ground than mere surface operations will yet have reached, and hence it is that one and all Irish mines require capital to push them forward to success.

Had one of millions recently expended in Indian gold mines been devoted in a thoroughly scientific and judicious manner to Irish mining, there is no doubt but it would give rise to profitable industry, and tend to promote the welfare of the people. Yellow copper ore is associated with galena near the surface of the Oola Hill Mines; but when the veins are penetrated a few fathoms beneath the surface the copper ore is not so general as in the gossans of the surface. Extensive beds of beautiful plastic clay are also found in this neighbourhood suitable for the manufacture of bricks, tiles, sanitary pipes, &c., nor are the mineral characteristics of this place of an isolated nature. The district extends to the silver mines near Nenagh, in the County Tipperary, at which place considerable quantities of silver-lead have been obtained, chiefly from a large contact vein, which also yielded for many years large quantities of calamine, the crop or best ore having been shipped to England, while the poorer ores were treated on the spot for the manufacture of oxide of zinc. The ore was roasted in suitable furnaces, and the sublimed metal conducted into chambers, in which a number of fans were set in motion by mechanical means, resulting in the metallic zinc combining with the origin of the air, and finally falling down in a white powder (oxide of zinc), which substance is largely used in imitation with white lead as pigment. The great lode at the silver mines contains vast quantities of iron pyrites cropping up to surface on its course westward to the Shollhee Lead Mines, which are reported to have yielded large quantities of silver-lead ore. Doubtless stimulated by the fact that mundic usually rides a good horse, an attempt was at one time made to bottom the iron pyrites and so reach the proverbial good horse beneath; but the attempt having been made on a limited scale, the copper ore which is supposed to underlie the mundic had not been reached, and it remains yet to be proved how far the adage may hold good in this instance. The copperiferous nature of the district, however, is favourable to the conclusion that rich copper ore mines may be discovered

in depth. Very rich and productive copper ore mines were formerly worked at Hollyford, eastward of the silver mines, in which locality the indications of mineral wealth are very prominent, and still further eastward, at Burrosleigh, a new mining field producing rich copper ore at surface under very favourable conditions, and presenting opportunities and facilities for successful mining, which should not be lost sight of.

The climate of Ireland is naturally mild, and, in most instances, water for dressing, &c., abundant. Moreover, the ores of copper and lead are seldom associated with ponderous gangue, so that ordinary dressing machinery, as a rule, is quite equal to the requirements of the country. In the copper ore mines the veinstone is usually quartz, which has a specific gravity of 2·6, while that of the yellow copper ore is 4·2—a difference which ensures speedy separation. Other copper ores are still more favourably circumstanted with regard to specific gravity. The black oxide, ruby copper, and Redruthite of the Cork mining district have a specific gravity of 6·10, 6·22, and 5·6 respectively. Iron pyrites and sulphate of baryta are sometimes associated with copper ores, and are not easily got rid of, especially the former, whose specific gravity is 4·9, and that of baryta 4·3. Barytas, however, more frequently accompanies lead ore veins, from which mineral, with proper classification, it is readily separated; so also is sulphur, in a great degree, owing to the high specific gravity of galena. Galena varies from 7·2 to 7·7 in specific gravity, according to the conditions under which it had been formed, and is seldom found associated with impurities, from which it cannot be separated by mechanical means.

THE INDIAN GOLD MINES.

Whatever may have been the disappointment experienced by shareholders in Indian gold mining companies, there is no justification whatever for the complaint that the English officials have neglected to publish abundance of information from the mines; indeed, it is not improbable that over anxiety to avoid the charge of utilising early information is fairly urged as an excuse for publishing ambiguous and unverified telegrams, and details of results obtained at the mines in the course of trials such as are almost daily made in home mines, with no other object than to ascertain whether work in progress should be carried on or suspended. Delays and disappointments are met with in all businesses, and the Indian gold mines have proved no exception, but the fault has been rather the publication of too much than of too little information. With regard to the Glenrock Company, Mr. John Griffiths, a shareholder, complains in a letter to the secretary (among some correspondence which he forwards for notice), "that the directors said no matter what the result was it could not be taken as a fair criterion of the yield. Such statement being directly contrary to the oft-repeated one that when the Glenrock did begin it would be no mere trial, but the start of constant crushing; and if that be so—the mill in permanent working order—it is time the result of not one week or month, but of several weeks, and two months' crushing at least, were known to us all. Withholding information from shareholders is most unjustifiable on the part of directors. We have as much right to it as they have. It is idle pleading the difficulties met with were beyond anticipation. If they were to the extent of two years' delay that only shows the ignorance and inexperience of the managers. They have promised yields of gold they have all this time failed to make, and promised work they have been unable to execute." In reply the secretary of the Glenrock Company very truly says that, as to not publishing results, "the facts are the opposite. Results, so far as they are known in England, have been published, and had you seen the statement of the board that has been given in all the respectable mining papers you would, I am sure, have modified the character of the letter under acknowledgment."

The mistake into which Mr. Griffiths appears to have fallen is that he says the officers promised "work, which they were unable to perform," whilst he really means they promised "results which they were unable to obtain," the first being an inexcusable, and the second an excusable blunder, although both are equally unsatisfactory to the shareholders, inasmuch as the earning of dividends is deferred. The first great error was the adoption of the view that because Mr. R. Brough Smyth had occupied the responsible position of Secretary of State for Mines in Australia he must of necessity be infallible as a practical miner, which by no means follows. It is easy to be wise after an event; but the absurdity of relying upon such an authority may now be made evident by asking—What regular traveller crossing the Atlantic in a storm would prefer the First Lord of the Admiralty to the experienced captain of a Cunard or Allan liner to navigate the ship? But it were better to endeavour to forget the past altogether, profit in the future by the amount paid for the experience gained, and look hopefully for profits from the work now being carried on. Fortunately, the prospects now really seem to be brightening, for the subjoined correspondence has this week passed between Mr. William Abbott and the Secretary of the Indian Phoenix Gold Mining Company:—

DEAR SIR,—I understand that the last Indian mail brings news that a rich reef, which intersects the Phoenix property, has been cut on one of the adjoining estates. From your long stay in the Wynaad, and your intimate knowledge of the gold fields there, it occurs to me that you may know something upon this subject, and I shall, therefore, feel greatly obliged by your giving me any information that you possess. I need scarcely remind you that shareholders in the Indian gold mines are becoming dispirited through the want of skill which has characterised the management of certain companies, and particulars of a definite character would, therefore, be especially welcome at present.

W.M. ABBOTT.

DEAR SIR,—I am in receipt of your favour of this date, and, in reply, have much pleasure in giving you the information you ask for, and about the correctness of which I entertain no doubt. You will remember that it was mentioned at the Glenrock meeting, I believe by General Wray, that the Agnew Reef, which runs through the length of this company's property, intersected an angle of the adjoining land belonging to the Glenrock Company, the distance being, as nearly as I am able to compute it, 400 yards. A tunnel and shaft were driven on the Glenrock property to prospect this reef, but when I left the Wynaad the farther progress of the work was stopped by water. To assist the Glenrock Company, Mr. Grove, the Phoenix Company's manager, suggested that they should drive a heading from the Phoenix estate side of the lode on the Phoenix land, and from which place, in consequence of the steepness of the ground, it is much easier to attack the reef than from the Glenrock Valley.

I believe the Glenrock Company have availed themselves of the facility so offered them by Mr. Grove, for he writes that they have cut the Agnew Reef to a width already of 6 ft., and that he was told it showed free gold. The Agnew Reef is the one which this company have proved the richness of in our Grove tunnel. Being personally well acquainted with the spot, I feel convinced the news is correct, and, if the quartz is as good as that of Grove's section, it will put a very different complexion on the value of the Glenrock property to that which shareholders, in their present sceptical state of mind, have any idea of. I have stated my opinion of the value of the Agnew Reef with regard to the Phoenix as a property to shareholders, both here and in India, and Mr. Grove, in whose judgment, from daily communication on the field, I have unlimited confidence, believes that when he has crushed the next 100 tons which he is now getting out, the experience in point of results of the first 32 tons he crushed will be equalled, if not exceeded. This will, in any reasonable man's mind, decide the question of gold in India.

Indian Phoenix Gold Mining Company,
Austin Friars, London, Nov. 14.

A. W. RIXON, Secretary.

This information will be scarcely less gratifying to the shareholders in Glenrock than to those in Indian Phoenix, and certainly should prevent the refusal of a little more patience on their part. A 6-ft. reef with free gold in very small percentage, and with regular operations going on, would soon convert shareholders' disappointment into rejoicing, especially when they remember that it is an almost invariable rule in the history of mining that the greatest and most profitable mines are those which were most disappointing in their early days.

[Nov. 18, 1882.]

Original Correspondence.

A TRIP TO COLORADO—No. VI.

BY THOMAS CORNISH, M.E.

Author of "Gold Mining, its Results, and its Requirements."

In noticing other exhibits in the Great Denver Exposition, there being so much to admire, it will be difficult to do justice to the many separate displays of similar classes of ore from the several counties there represented, but I will mention some of the principal representations. Boulder County, north of and adjoining Gilpin County, has a large and attractive display of ores, and some exceedingly choice specimens in cases. The exhibits are free gold ores, telluride ores, and silver ores, with a sample of placer gold. About 200 mines are represented; the weight of the specimens 15 tons, and valued at \$24,000. The Golden Age Mine shows some very handsome specimens of free gold ore, and from the description of the lode in the mine, which has already produced \$135,000, should be made to give very large returns. Another good display from the Ni Wot Mine, on the Columbia vein, one of the oldest mines of the district, and which is said to have produced over \$1,000,000 since it was opened, attracts considerable notice. The vein averages 4 ft. of pay ore, chiefly auriferous pyrites in quartz, varying in value from \$8 to \$250 per ton, and has been opened up and traced for three miles. The Nelson, the December, the Romance, and Baxter Mines all make good displays. The telluride ores also attract special attention in the exhibits of this country. The belt containing this peculiar class of ore has been proved about 13 miles long by three miles wide. The Slide Mine, Gold Hill, shows fine specimens of the ore, some weighing half a ton, taken from the 600 ft. level. The Prussian Mine also makes a fine display, and the specimens have been carefully selected to illustrate the various characteristics of the ore. Some of the specimens showed flour and wire gold. The Intercean, Sunshine, the Logan, the Melvina, the Emancipation, the Smoky Hill, the John Jay, the Smuggler, the Ingram, and many others, are all represented with a similar class of ores, fully demonstrating the great wealth of the district. The Yellow Pine lode has a fine display of silver ore from a strong vein. The ore is chiefly a grey copper, in a compact siliceous veinstone; the value is said to be from \$500 to \$1200 per ton. Last year the production from a small quantity of ground opened was \$50,000. In addition to the valuable display of gold and silver ores, the Boulder County shows some fine specimens of coal from its extensive coal fields.

Chaffee County, south of Lake County, has a prominent display, some specimens showing great rarity and beauty, well representing the wealth of the district. This county, which contains a large section of the Rocky Mountains, has not been yet so much developed as some of the old districts; but many of the mines that have been opened show exceedingly well for developing into very rich mines. Among some of the ores rich in gold is some from the Little Tressie, on Red Mountain, running 10 ozs. gold and 50 ozs. of silver per ton. The Gibraltar also shows similar class of ore. The Willard Mine has a peculiar-looking ore, said to average 40 to 50 per cent. lead, 20 to 30 ozs. silver, and 3 to 4 ozs. gold per ton. Several other mines show gold ores of excellent quality and handsome specimens of silver ores, much of it carrying galena and iron pyrites, varying in their assays from 100 ozs. to nearly 1000 ozs. per ton.

The Gladstone, in the Cottonwood district, shows large pieces of galena and surface rock, and small pieces showing native silver in various forms and handsome to look at, making an excellent display. The ore is chiefly galena and black sulphurets, said to carry 30 to 50 per cent. lead, and from 200 to 300 ozs. silver per ton. A number of mines from the Chalk Creek districts shows a variety of mineral ores in various forms and value, all plainly indicating the great mineral wealth existing in the county. Clear Creek County, south of and adjoining Gilpin County, is another of the rich mining counties of the State, and makes an admirable display of its wealth, and, as Fossett's remarks, is a large and continuous mining district, and contains a vast number of gold and silver lodes, the yields from 1872 to 1881 being \$20,512,194, or an average of over \$2,000,000 annually. Some very large blocks of rich ore are displayed from the Freeland Mine, the famous Hukill, near Spanish Bar, and others. There are many other large and valuable mining properties that have their exhibits on view, and some very important mining operations are being carried out in this county, the Consolidated Seaton Mountain Mining Company being deserving of special notice, as it is now carrying on two tunnels through two sections or groups of mines in the mountains, and which will open a vast extent of rich ground to work on lodes that have already been proved good from surface and shaft workings. The company is organised with a capital of \$3,000,000, in 500,000 shares of \$10 each. The names of the mines represented by this county are legion, many of them possessing special features of interest and attraction, and very practically illustrating the enormous mineral resources of this county, upwards of 300 mines being represented.

Custer County is represented by exhibits from over 200 different mines and prospects; the total weight of the exhibits is 26 tons, and the gross value \$13,800. A large variety of ores are displayed; the chief mining districts are about Silver Cliff and Rosita. The Bassick Mine has fine display of gold ores of a most peculiar character, mostly in the form of boulders or nodules coated with a rich mineral. The description given of this mine is that the ore is found in a chutte-like the mouth of a volcano, varying from 20 to 80 ft. in width, connected together in a mass of conglomerate, and some of it remarkably rich. One piece from the lower working, 820 ft. is said to assay \$4000 to the ton. The Humboldt, one of the oldest mines of the district, and the most extensively worked, the shaft being 720 ft. deep, it produces a silver ore averaging about 160 ozs. silver per ton. Some very rich ore is also shown from the Boulder Mine; the boulders are siliceous and displayed in great variety, some of them said to range in value from \$250 to \$13,000 per ton. The Ball-Domingo shows a quantity of galena ore, said to yield 43 ozs. silver and 53 per cent. lead per ton. The mine is a big deposit of boulders covered with galena shells with a filling of galena between the boulders; one pocket of solid galena is said to have been 48 ft. in diameter. The Pochahontas Mine is one of the oldest mines of the district, adjoining the Humboldt, has produced a considerable amount of bullion; the ores yielded about 170 ozs. silver per ton. Fremont County has not such an extensive display of ores as other counties more developed, but enough is shown to justify energetic development of its great mineral resources of gold, silver, copper, lead, cobalt, nickel, iron, and coal.

Gunnison County has made a magnificent display of the resources of its enormous territory, comprising handsome specimens of gold and silver ores from the seven mining districts in which the county is divided, as also specimens of anthracite and bituminous coal and iron ore. It is said that the resources of this county will be so vast and important as to materially enhance the value of that section of the State, and it is prognosticated that Gunnison city will become the metropolis of the western slope of the Rocky Mountains. It is conveniently situated as a grand centre for the smelters, blast-furnaces, and iron manufacturers of various kinds, the raw products for which abound in the district, and it will become the great concentrating and distributing focus for a rich and extensive mining, agricultural, and grazing country. In a graphic description of its resources I find it stated that, "Vast as are its treasures of its precious metals they form but a small part of the great natural wealth of the Gunnison County. Perhaps no other country of equal extent on the face of the globe can show the same variety, extent, and richness of natural resources. One locality may have silver, another gold, another iron, and another coal. The Gunnison County has them all, and marble, lime, and fire-clay as well. A history of the natural resources of Gunnison County almost staggers belief." The city is within easy access of the mining camps of Tomichi, White Pine, Ohio City, Pitkin, Tin Cup, Ashcroft, Aspen, Scofield, Elk, Sheep Mountain, Gothic, Treasury Mountain, Slate River, Cochetopa, Lake City, San Miguel, and many other camps, and is completely surrounded by one of the richest mining countries in the world, and can be approached by an easy grade from every direction.

The Denver and Rio Grande railroad runs to the city, and further

railway accommodation will soon be completed. It has a population of over 5000, and well provided with churches and schools, graded streets, gas, water, telegraphs, telephones, and all the required improvements of a rapidly growing city.

I can but think that from the enormous extent of country occupied by Gunnison County, with its immense area of mineral lands of all descriptions, and the vast plains of rich pastoral and agricultural territory, well watered by the many ever-flowing streams from the western slopes of the Rocky Mountains, that it must become one of the most fruitful and richest mineral districts of the State. The vast beds of coal and deposits of iron ores will offer special facilities for the development of iron manufactures, and should be able to supply all the iron rails and other work for lines amongst the Rockies, as also for the country between there and the Pacific Ocean. The exhibits are from over 400 different properties, weighing 28 tons, exclusive of the immense blocks of iron ore and coal outside the building, and well represent the value of the deposits of ore in the county.

LONDON COAL SUPPLY.

SIR,—As your important organ of the coal trade gives such a prominent position in your columns to all that tends to the amelioration of coal mining, permit me to state I look forward to an early *denouement* of the important undertaking that has appeared in the Journal on the following basis:—

SEABORNE COAL COMPANY (LIMITED).

Capital 5,000,000^l, in shares of 10^l. each. 10^l. per share payable on application 10^l. on allotment, with two months previous notice for further calls not exceeding 10^l. each.

PROSPECTUS.

The primary object of this undertaking is the purchase, transport, and vend of Yorkshire, Derbyshire, and Notts coal from the pit mouth, and distribution to consumers' premises in London, &c., at a profit on mere cost of transport of combined competing systems of rail from the said coal fields, and sea transit from the Tyne, irrespective of profit on coal of about cent, per cent, accruing to invested capital and thus extinguishing the occupation of a class of men who, albeit acting an inferior role to the railway companies, have continually molested the metropolitan consuming public to the extent of upwards of three millions sterling annually as compared with the proposed undertaking. But the most effectual means is by sinking an amount of said gain equivalent to the totality of pre-estimated rates equally extinguishing all existing railway and Tyne sea traffic, the outcome of rigorous calculation, based upon practical data, resulting in a net dividend of upwards of 20 per cent, accruing on invested capital, based upon the extravaganza of the railway and screw colliers carrying coal for nothing.

As a proof that this view is supported by the highest authorities in this speciality, editorial articles of the leading organs of the coal trade, *Mining Journal* and *Colliery Guardian*, with the no less weighty legis of the Engineer, give expression to the identical consensus of opinion, one of them stating—"proposed system will extinguish existing rail and sea transit to London, and revolutionise the London coal trade." The import into London last year was 10,250,000 tons, constituting the largest transport in the world.

The supply of the Metropolis with coal upon a gigantic scale was inaugurated by the Great Northern Railway Company not merely as carriers in their legitimate capacity, but as coal merchants, its suppression being assigned in their general manager's evidence in answer to question 12,639 of the Royal Commission on railways thus—"At one time we were coal merchants, but some members of the coal trade brought the matter before chancery, and we were debarred from dealing in coals, resulting in the public having to pay 3s. a ton more for their coals." To attain an amelioration of existing cost of transport with which the industries, commerce, and general consuming public are molested, it is indispensable to resort to means beyond the control of Parliament, from which source the Great Northern and all railway companies derive their concessions. The proposed company is under no such jurisdiction. No similar large company has taken its place, the coal traffic being worked by innumerable, increasingly so, coal merchants, dealers, but comparatively few coal-owners, at a great disadvantage as compared with the capability of a large company, as just cited; but infinitely more so by a company possessing improved means of economic transport and delivery throughout. It is a well-known fact that the cost of conveyance, with attendant expenses inseparable from the transport, the largest in the world, by far exceeds the prime cost of the coal at pit mouth, the grand factor requiring amelioration being by no means the coal, but the cost of conveyance, the price of the coal paid to the coal-owner being augmented fourfold to the consumer by the London coal dealers, about whom so much has been said and written, the latest *bon mot* being by Sir Joseph Pease, M.P. for South Durham, in the House of Commons Committee Room—"There are tricks in all trades, but the coal trade is tricks altogether."

It may not be deemed inopportune to state that the absorption by the London and North-Western Company, North Eastern, Great Northern, Great Eastern, &c., of numerous lines, the amalgamation of the Metropolitan gas companies, &c., was effected with a view to a great reduction in working expenses. Mr. William Joseph Thompson, as managing director, will be remunerated by a percentage on net profits after distribution of 10 per cent. to shareholders. Preliminary expenses not to exceed 2¹/₂ per cent. on capital, payable in the same manner.—Little Tower-street, Nov. 14.

W. J. THOMPSON.

FOREIGN MINES.

ADELAIDE.—A. F. Seccombe, Nov. 10: I have the pleasure to inform you that we have discovered a new lode about 10 ft. to the south of South Grunskart shaft, which, from all appearance, will prove very productive. As far as seen it is about 2¹/₂ feet wide, and worth fully 20^l. per fathom. I have sent with the Tasso a small case of samples taken from across the lode, and which is a fair sample of the lode as far as seen. I enclose a rough sketch just to show its relation with the two other lodes, and as depth is attained it will meet with the main lode. We also expect to cut through the South Grunskart lode within the coming week, which from appearance in the present end leads us to believe that we shall also have a good lode here.

ALAMILLOS.—Nov. 8: The lode in the 20, driving east of San Martin's shaft, continues regular, with good stones of ore, valued at 1/2 ton per fathom.

On the same level, driving west of San Martin's shaft, the lode is similar to the one last described. The 60, driving west of San Felipe's shaft, consists of a strong lode,

which is without ore at present. The 40, driving west of San Felipe's shaft, is being driven north to prove whether there is any more lode there.

In the 60, driving east of San Enrique's shaft, we expect an improvement shortly, there being a good lode in advance of it; the present value of the lode is 1/2 ton per fathom.

In the 130, driving east of Taylor's engine-shaft, there is a large and regular lode, but without ore. The lode in the same level, driving west of Taylor's engine-shaft, has a promising appearance, producing 1/2 ton per fathom.

The 80, driving east of San Victor's shaft, has just passed through a powerful cross-course.

In the 80 (middle lode), driving west of San Victor's shaft, the lode is still large, but has declined in value to 1/2 ton per fathom.

The lode in the 80, driving west of San Victor's shaft, is strong and well defined, producing 1 ton of ore per fathom.

In the 50, driving west of San Victor's shaft, the lode continues unproductive.

The lode in the 70, driving in the same direction, has improved to 1/2 ton per fathom.

In the 60, driving east of Judd's cross-cut, the ground is hard and the lode very small.

The driving of the 70, east of Munro's winze, has been suspended for the present while the men sink a winze from the bottom of the level.

Munro's winze is going down below the 40 in a large and promising lode, worth 1 ton per fathom.

In Vidal's winze sinking from the bottom of the level, the 50 the lode has fallen off in value.

The weekly returns of ore were kept up very regularly during the past month, the stopes are yielding moderately at present. We estimate the raisings for November at 200 tons.

The quantity returned by the tributaries in the past month was 200 tons. The works at surface are kept on very regularly, and the machinery is in good condition.

CALIFORNIA OF COLORADO GOLD.—Alfred Rickard, Oct. 21: The 1300 ft. level, east of shaft, is in 168 ft.; yielding 3 tons of fair grade milling ore per fathom; lode 1¹/₂ ft. wide, improved.

The 1300 ft. level stopes, east of shaft, are yielding 6 tons of milling ore per fathom; lode smaller, now 2¹/₂ ft. wide.

The 1300 ft. level, west of shaft, is in 176 ft.; an improvement has taken place,

and the lode carries 1 ft. of mineral of low grade, which will lead to something better at an early date.

The 1300 ft. level rise is up 11 ft., and yielding 4 tons of milling ore per fathom; lode 20 in. wide.

The 1200 ft. level, west of shaft, is in 366 ft., and yielding 5¹/₂ tons of good milling and 1/2 ton smelting ore per fathom; lode 2 ft. wide; the width of the vein has diminished, but the mineral has improved in quality.

The 1200 ft. level stopes are yielding 7 tons of milling ore per fathom; lode 2 ft. wide.

The 1200 ft. level winze is down 43 ft.; it is very satisfactory to find the lode in the winze developing so well, as it is opening out stopping ground worth 5 tons of milling ore per fathom.

Once communicated to the rise from the 1300 ft. level, stopes can be put out east and west.

The 1100 ft. level, east of shaft, is in 190 ft., and yielding 1¹/₂ ton of high grade mineral per fathom; lode 6 in. wide.

The 1100 ft. level west is in 270 ft. The tribute pitches yield fairly, and maintain their usual output.

—Telegram: Alfred Rickard, Nov. 15: Mill run (eleventh week) 320 tons; net value, \$2900 (580^l); ore sales, \$500 (100^l).

CHONTALES.—Manager, Oct. 5: Consuelo: The ground in the beginning

of last month was a little better for progress, but the present end of the main level is again very hard, and I have now stopped the driving, as I am afraid that our small resources would not be sufficient to enable us to reach the ore by the main level through this hard ground.

In the past month we have made some progress in the back, where I intend to start a small level from the rise toward the east through the pillar under the old workings, and by which I hope to get to the shoot of gold before

our funds are exhausted. I am very sorry to have to stop the main level, but I

as I am going to do now, as it would be difficult to rise through the old workings and broken ground, so the only difference is that we shall be ahead of the main level instead of coming behind it, and consequently shall have to bring all the stuff from the small level back to the rise. I could not carry on both the levels and rise with our present capital, as you know I must have next month and the following month, perhaps, a large amount to pay for dues on the dynamite, but I hope to meet with something on the new level to enable us to bring on the main level again. The cost paid at the mines for the month was 101^l.

CHILDE GOLD.—Manager's letter, Oct. 4: Mill report for September: The mill report is the best yet sent, and shows 2²/₁ ozs. per ton. This is entirely

exclusive of any loss there may be in the tailings. Of this every information

will be forwarded to you on Mr. Chester's return. I have been so much occupied

that during his absence I have not been able myself to put through the require-

ments of the stamping, and when I have had the old ones underpinned and the foundations

strengthened, all will be in good working order. The other 20 are not so

good, as they were put up evidently in a great hurry, and without paying suffi-

cient care to the stability of the foundations. I have strengthened them a good

deal by the manner in which the foundations of the middle 20 are put in, and

shall, as opportunity offers, put them in order. I enclose copy of indent for 20

stamps, and have already set the contracts for the mortar blocks and batter

posts, which are most difficult to obtain large enough.—No. 1 Shaft: This is

likely to become one of the main hoisting shafts. We have worked into a very

large and good quartz deposit to the east. During the past month we have had

more than the usual difficulties; but for this the monthly return would have

been nearly 3000 ozs. General health is good, and I think

pitch 140 ft. level : The north end has been driven 5 ft. during the past fortnight: The stone is rising north very fast. All the stone is above the back of the drive, and it has proved to be very good where it took the turn to rise; good gold being visible in breaking it. The south end has not been driven this fortnight, as the tributaries have been stopping out the quartz on the eastern side of the drive; the stone here is 4 ft. thick, and 15 ft. from the eastern to the western wall, but very poor. We have crushed 140 tons of stone for five weeks' work, and cleaned up 83 ozs. 16 dwt., of retorted gold; which is very good; yield 9 dwt., 2 29-50ths per ton.—No. 2 Pitch, 150 ft. level: The stone in this drive is cutting out very fast going north, but better in quality, and is making off in small leaders west of the slide in slate and sandstone bars. There is a large body of stone over this slide, but the tributaries have not been working any ground above the slide, as they wished to prove the stone under the slide by hand, which proves to be good payable stone, but another fortnight will work out the whole of this stone if it continues going smaller, as it has done for the last 10 ft. We have crushed for these tributaries 246 tons of stone for the month, and cleaned up 69 ozs. 5 dwt., of retorted gold; yield 4 dwt., 21 28-50 grs. per ton. Five stamps have been going on this stone all the month (average yield of the two parcels together 386 tons 6 dwt., 10 14-16ths grains per ton). We are also crushing stone from No. 3 pitch, and the tributaries are working on a smaller south of No. 1 rise under the 20 ft. level, which I think is poor. We shall clean up about the end of this week. We are also crushing stone from the No. 4 pitch, and shall clean up either on Wednesday or Thursday next. There are about 40 ft. further to drive to No. 2 rise in the back of the 420 ft. level. Two men are going to drive north in this rise on the run of stone, as there is not room enough for six men to work in the level, and not much ventilation. I intend to sink a shaft north of the north dam on an outcrop of quartz east of the western reef, to see if there is any good stone going down, which work I intend to have done by contract. The receipts for gold sold and sundries during four weeks ending Sept. 25 were 619z. 0s. 5d.; the payments for wages, materials, tributaries' share of gold, and salaries during same period were 442z. 11s. 5d.; leaving a profit on the four weeks' working of 175z. 9s. There are about 14 tons of pyrites for sale, which are estimated to realise 40z., which is an addition of that amount to the profit. The balance at the company's credit at the Bank of Victoria was 339z. 2s. 2d., and the balance of cash, &c., in London is now 754z. 15s. 3d., making together 1144z. 3s. 2d., and there are no liabilities.

FORTUNA.—Nov. 13: Canada Inca Mine: In the 70, driving west of San Pedro shaft, there is a wide lode split into branches containing ore worth 1/2 ton per fathom. The lode in the 80, driving west of San Pedro shaft, is large and regular, but at present without ore. In the 90, driving in the same direction, the lode is very promising, being easy for opening up, and producing 1/2 ton per fathom. The lode in the 120, driving east of O'Shea's engine-shaft, is very wide, but does not contain enough ore to attach a value to. In the 105, driving east of Lowndes' shaft, a good length of profitably lode is being laid open, worth 1 ton per fm. The lode in Arabi's winze, sinking below the 110, has declined in value to 1 ton per fm. In Elvira's winze, sinking below the 80, the lode has slightly improved, and yields good stones of ore. Los Salidos Mine: In the 175, driving west of Taylor's engine-shaft, the ground is hard and the progress rather slow. The same level, driving east of Taylor's engine-shaft, is in contact with a powerful cross-course. The 145, driving east of Taylor's engine-shaft, is laying open a good run of rich lode, worth 3 tons per fm. In the 135, driving in the same direction, a good length of lode was laid open in the past month, valued at 3 tons per fm. The lode in the 120, driving east of San Pablo's shaft, is split into branches, and reduced in value to 1 ton per fm. The lode in Bey's winze, sinking below the 35, has fallen off in productiveness to 1/2 ton per fm. The lode in Alameda's winze, sinking below the 150, is small at present, producing 1/2 ton per fathom, and the ground is hard. The weekly weighings of ore were kept up very regularly during the past month, and the stopes continue to yield moderately. The works at surface are going on satisfactorily, and the machinery is in good condition. We estimate the raisings for November at 320 tons. The tributaries returned 156 tons last month.

San Anton Mine: In the 55, driving east of Henry's engine-shaft, good ore ground was opened up in the course of the past month; but the lode is at present poor. There is no improvement in the same level driving west of Henry's engine-shaft. The 45, driving west of Henry's engine-shaft, continues unproductive. Perez winze, sinking below the 45 will be holed to the 55 in the present month.—San Francisco Mine: The lode in the 25, driving east of El Claro shaft, is regular, but does not contain ore enough to value. In the 40, driving east of San Francisco's shaft, there is a good shoot of ore in advance of this in the bottom of the 25. In the 55, east and west of San Francisco's shaft, the lode is regular, and sometimes yields good stones of ore; but we have decided to suspend the driving at present: The 40, driving west of San Francisco's shaft, is likely to lay open as well as drain some ground for tributaries. We have suspended the drivings east and west of whin-shaft, and set the lode on tribute on terms favourable to the company. The usual quantity of ore was delivered to the Fortuna Smelting Works during the past month, and the stopes are yielding fairly well at present. The surface works, which include the building of a house for a 36-in. beam-engine in El Tesoro sett, are going on satisfactorily, and the machinery is in good order. We estimate the raisings for November at 75 tons.

INDIAN GLENROCK GOLD.—Oct. 23: New Shaft (Agnew Reef): This point at present presents very encouraging features. We have intersected the reef, and cut into it for a distance of 5 ft.; and from the results of washings obtained in pan, I think the prospects here are very good.—Korumber Tunnel, No. 1: The reef is much smaller, but, judging from past experience, I think it probable it will open out again.—No. 2: The reef here presents the same appearance as when last reported on. We have commenced a stope from the end of winze, which is progressing very favourably.—No. 1, Plaintiff Reef: Cross-cutting through the reef, and driving east on its course, is still being carried on, and wonderfully good-looking stone got out at both points.—No. 3, Mango Reef: We continue to drive as when last reported on—the reef being without change.—Bittus New Opening: Work here is being pushed on with all possible speed, and most encouraging results obtained by washing.

—Telegram, Nov. 14: Have crushed during the past month 300 tons. Results obtained 18 ozs. 5 dwt., free gold. Have saved 4 tons of clean concentrates; assay per ton 4 ozs. 5 dwt.

ISABELLE GOLD AND SILVER.—Lewis Chalmers, Oct. 23: I am pushing things both here and at the mine as fast as I possibly can. The alterations on the lower part of the furnace ought to be completed this week; we have then the other two hearths to alter. All the furnace castings are on the ground, and those required in the lower hearth mostly in. The addition to the building is finished, and the carpenters are busy on the agitators. The additions to the hoisting building and boiler-house are almost ready for shingling. The station at the 200 is completed, and 130 ft. of drift from winze chamber. All the machinery is on the ground except the boiler, and that would have been up but for the late rain and snow softening the ground so much that the teamsters were afraid to tackle it. If the weather keeps as it has been for two days, for two days more I will have it up this week. The shaft is cleaned out to the depth of 30 ft. We have to enlarge it all the way down to hold the timbers and cage. The old shaft had no timbers in it, but was simply lined with 3 in. plank, hence its caving in completely all the way down. On Saturday, when I was at the mine, they were preparing to timber up from the 30 with 10 by 10. After that, as the ground is firmer, I will use 8 by 8. All the timber is on the ground. The Orion claim is our southern extension, ergo, we ought to find the same stratum of ore in our claim.

JAVALL.—G. E. Chambers, Oct. 5: Mine: Through the sickness of the contractor, Pim's tunnel only progressed 1/2 var. The slow way this work has gone on, chiefly on account of the extreme hardness of the ground and the distance the natives have for that kind of work, has induced me to try a German miner on day labour, but with a premium of \$20 per var for every var over 3 vars driven in the month. I hope thus to get over the difficulty and push on this work, which may be considered one of the most important to the mine. The level north of Pollock's tunnel driven 3 vars. The remainder of work done was on the various stopes, from which we extracted 551 cubic vars. The Manto workings yielded 300 cubic vars. All the stopes are in very good quality quartz now, and for the present I can see no reason for a change. The rich thread in San Pedro stope has almost disappeared, but the quartz still holds on good. From the south level stopes we are extracting stuff which remained in the old north stopes of some years back. The whole mine is, as usual, in capital condition, and, with power to grind, there is no fear of our not making good results.

Española Mine: The main level here was driven 8 vars; ground very hard, and barely showing gold. We are now on a patch of poor ground, which by the appearance of the lode I had before anticipated I feel convinced it will not last long, and all we can do is to push on to open out stoping ground. The weather being very dry I almost supplied the stamp with manto, which although not rich pays expenses, and is cheap to bring to the mill. The cutting to the Conception (which for the future I shall call by the name given by the natives to the lode discovered there, and which is "Cusica") is nearly completed, and by the 15th of this month I hope to be able to bring down manto to the mill.

Mill and Remittance: After the departure of last mail the weather set in extremely dry, and on the 10th I was obliged to put the engine to work, with the aid of which I was enabled to keep all 30 stamps at work. Fortunately the weather has again changed, and we are working with water alone. As October has generally been a wet month I do not think there is a fear of again having to fall back on the engine. The 30 stamps worked 21 9-24 days, crushing 1850 tons of quartz, which yielded 457 1/2 ozs. of gold, making an average of 4 dwt., 22 grs. per ton, 6 dwt. better than last month. The total remittance, with the result of Esperanza mill, consists of 540 1/2 ozs. With the exception of the ordinary repairs and repositioning the mill is in good working order, and should the water-power keep steady next month's remittance will be equally good, if not better. Esperanza Mill: The eight stamps worked 20 4-24 days, crushing 37 tons of quartz and 385 tons of manto, which yielded 83 1/2 ozs. of gold, making an average of 3 dwt., 22 grs. Hope to be able to send you a still better remittance by next mail.—Receipts and Expenditure: The boxes of coin arrived safely. The expenditure was 1651z. 0s. 1d.; the remittance is valued at 1400z., thus leaving a balance profit on all expenses of 335z. 12s. 1d.

KAPANGA.—James Thomas, Oct. 7: Crushing: For the past month we have crushed 45 tons of general quartz, which produced 25 ozs. and 62 lbs. of specimens, yielding 2 ozs. per pound of stone. Total melted bullion 149 ozs., giving a general yield of over 3 dwt., 6 dwt. per ton of quartz.—The 50, Scotty's Lode: No. 1 rise south has been further stopped in the back 25 ft. high by 15 ft. long; height of rise from the level, 115 ft. The lode maintains its regular size and character, averaging 2 ft. wide, of soft grey quartz, intermixed with a soft flocular, which carries a little free gold and a quantity of fish-looking pyrites; at times some good specimens are met with here, and the general stope has proved very good.—No. 2 Rise South: The height stopped here has been 10 ft. by 40 ft. long; height of rise from the level, 60 ft.; the lode varies in size from 15 to 20 ins. wide, consisting of a more compact branch of quartz than No. 1, it is also greatly intermixed with pyrites and soft flocular, producing occasional rich specimens, when the general stuff is always good for crushing.—No. 3 Rise South: Since my last I put a pair of men to rise some 50 ft. south of No. 2 on a piece of ground the south end went through, which produced some splendid stone; the height rose is 20 ft. by 10 ft. wide. The lode here is precisely the same as seen in No. 2, and has produced some of the best specimens we have had for the month.—South End: This end has been further driven on the course of the lode 25 ft.; the length driven south of cross-cut, 252 ft. The lode early in the month became squeezed, consisting of a black seam of tough flocular from 3 to 12 ins. wide, lying against the hanging wall, and continues the same to the present, consequently the end has not yielded any stuff for crushing during the month; similar changes often occur, and when the quartz makes its appearance gold stone generally follows. I expect a change at any moment. As anticipated in the 70, the water was most successfully forked within 14 days from commencing without accident or delay. We found the cross-cut and plat

filled with mud sediment 3 ft. deep, which took some days to remove and get the sump clear.

The No. 1 rise is a few feet north of the cross-cut intersecting the lode, and was found in good condition. I put on six men in three cores rising to hole through to the main winze bottom level as soon as possible. In March last, when the water came in, this rise was up 65 ft. Rose this month 15 by 12 ft. long, total height 80 ft.; the lode continues still intersected by a "hinge," or bar of hard stone. The ground is getting better, and I think we shall soon get through the bar, when the usual regular lode is sure to be seen. The hanging wall is very regular and defined, carrying the universal black, tough flocular seam, sticking hard against the wall, which is the best indication for speedily leading to quartz. The 70 cross-cut, commencing from Kipang's lode, I have set a contract to six men to drive east to cut Scy's lode at 175, 64. per foot. Distance driven 25 ft. The ground is good for driving, and is precisely the same character as we found it when driving the 50 cross-cut. I am hoping the lode will be cut in three months from starting.—Specimens: This month the specimens are best crushing stuff, coming from the No. 3 and No. 1 rises, on this stone all the month (average yield of the two parcels together 386 tons 6 dwt., 10 14-16ths grains per ton). We are also crushing stone from No. 3 pitch, and the tributaries are working on a smaller south of No. 1 rise under the 20 ft. level, which I think is poor. We shall clean up about the end of this week. We are also crushing stone from the No. 4 pitch, and shall clean up either on Wednesday or Thursday next. There are about 40 ft. further to drive to No. 2 rise in the back of the 420 ft. level. Two men are going to drive north in this rise on the run of stone, as there is not room enough for six men to work in the level, and not much ventilation. I intend to sink a shaft north of the north dam on an outcrop of quartz east of the western reef, to see if there is any good stone going down, which work I intend to have done by contract. The receipts for gold sold and sundries during four weeks ending Sept. 25 were 619z. 0s. 5d.; the payments for wages, materials, tributaries' share of gold, and salaries during same period were 442z. 11s. 5d.; leaving a profit on the four weeks' working of 175z. 9s. There are about 14 tons of pyrites for sale, which are estimated to realise 40z., which is an addition of that amount to the profit. The balance at the company's credit at the Bank of Victoria was 339z. 2s. 2d., and the balance of cash, &c., in London is now 754z. 15s. 3d., making together 1144z. 3s. 2d., and there are no liabilities.

LINARES.—Nov. 7: Pozo Aacho Mine: The lode in the 133, driving east of Warner's engine-shaft, has improved during the past week to 1/2 ton per fathom. In the 133, driving in the same direction, there is a good branch of ore on the north part of the lode, valued at 1/2 ton per fathom. The 130, driving west of Warner's engine-shaft, continues unproductive. The lode in the 115, driving west of Warner's engine-shaft, is still large; but has declined in value to 1 ton per fathom. In the 135, driving west of Peill's engine-shaft, the lode is small and comparatively regular, producing 1 ton of ore per fathom. There is no improvement in the 135, driving east of Peill's engine-shaft. The lode in the 120, driving east of Peill's engine-shaft, has changed favourably at this point, and is producing 1 ton per fathom. The 105, driving east of San Francisco shaft, is scarcely so productive as it was, its present value being 1/2 ton per fathom. No. 245 winze, sinking below the 93, is going down in a regular and well-defined lode, worth 1/2 ton per fathom. In No. 247 winze, sinking below the 100, there is a large and strong lode, with good lumps of ore, valued at 1 ton per fathom. The weekly weighings of ore were kept up very regularly during the past month, and the stopes have not undergone any change of importance. The surface works are going on steadily, and the machinery is in good condition.

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[Nov. 18, 1882.]

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To inspect deeds and for further particulars apply to WILLIAM GALLOWAY, Esq., Civil and Mining Engineer, Cardiff; Messrs. LINTON and KENSHOLE, Sollicitors, Cardiff and Aberdare; or to Mr. JOHN M. LEEDER, Auctioneer, Oxford Chambers, Swansea.

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FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE; with link-motion reversing gear, has drum and gearing complete for winding and pumping.

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(Signed) VICTOR T. GRILLET, Treasurer.

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Ely, Vermont, October 23, 1882.

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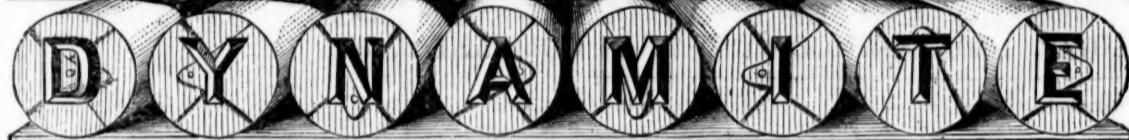
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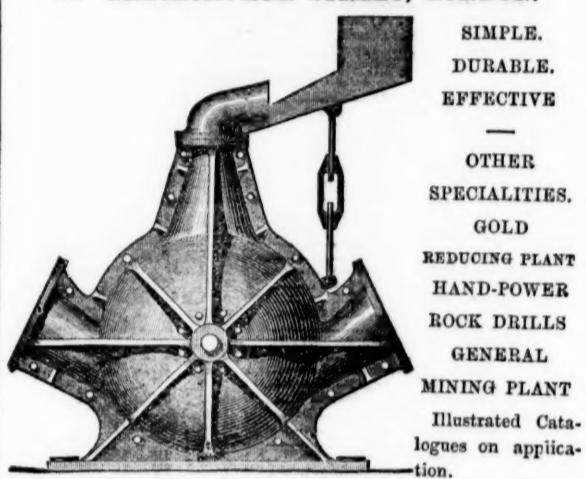
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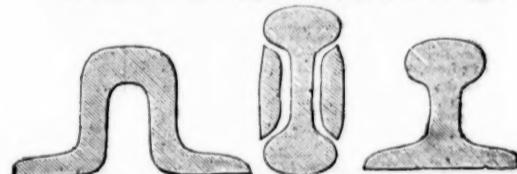
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[London: MINING JOURNAL Office 26, Fleet-street, E.C.]

[Nov. 18, 1882.]

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
Shares.						
3200 Blue Hills, t, c, St. Agnes	4 6	6...	13%	35 15%	0 4	0 2 0.. May 1881
6000 Carn Brea, c, Illogan	9 11	10...	85 95%	52 11 85	0 10	0.. Nov. 1881
4000 Cragnant Bach, *t, Cardigan	5 0	0...	65%	25 25%	0 5	0 5 0.. Oct. 1882
10240 Devon Gt. Consols, c, a, Tavistock*	1 0	0...	51%	113 7	0 0	0 6 0.. Dec. 1880
4520 Dolcoath, c, t, Camborne	10 14	10...	72%	57% 72%	133 8	2 0 0.. Oct. 1882
8400 East Pool, t, c, Illogan	0 9	0...	49	51	0 0	0 0 0.. Oct. 1882
12500 Frongeon, *t, Cardigan (1000 sh. iss.)	2 0	0...	2	15%	0 0	0 2 0.. Jan. 1881
12000 Great Holway, t, Flintshire	5 5	0...	51%	5 5%	0 5	0 0 0.. Feb. 1882
15000 Great Laxey, t, Isle of Man*	4 4	0...	18%	18%	28 28%	0 0 0.. Oct. 1882
5400 Great Laxey, t, Durham	0 6	0...	8%	8 8%	3 11	0 0 0.. Apr. 1882
20000 Grogwinion, t, Cardigan	2 9	0...	13%	2 0	0 16	0 0 1.. July 1882
10240 Gunnislake (Goliths), t	2 2	0...	4%	34 34%	0 19 9	0 0 0.. Mar. 1882
28000 Isle of Man, t, Isle of Man*	25 0	0...	4	4%	1 0	0 0 0.. Sept. 1882
6000 Killifield, t, Chacewater	4 3	0...	5	3%	0 8 6	0 0 0.. Aug. 1882
20000 Leedhills, t, Lancashire	13 15	0...	3%	3%	613 0	0 0 0.. Aug. 1882
6000 Melioran, c, Hayle	5 0	0...	6	5%	18 0	0 0 0.. Sept. 1882
20000 Minera Mining Co., t, Wrexham*	7 0	0...	9	9	69 4	0 1 0.. Aug. 1882
8000 Mon, * Anglesey	5 0	0...	4	4%	0 10 0	0 0 0.. July 1882
11339 North Hender, t, Wales	2 10	0...	—	—	3 18 0	0 0 0.. Nov. 1882
8146 Ditto	1 5	0...	—	—	0 11 3	0 0 0.. Feb. 1882
2000 North Leland, t, c, St. Just	13 6	0...	4	3	4 4	0 2 0.. Nov. 1882
47600 Penhalls, t, St. Just	4 0	0...	1%	3%	3 17 0	0 1 0.. Jan. 1881
8000 Pennant, t, bar, North Wales	5 0	0...	4%	4%	0 10 0	0 0 0.. May 1882
12500 Phoenix United, t, C. Llanrhynone	6 0	0...	3	3%	25 25%	0 0 0.. Aug. 1882
18800 Pr. Patrick, *t, lns. (12000 p.f. 10 p.c.)	1 0	0...	—	—	0 18 0	0 0 0.. July 1880
10000 Red Rock, *t, Cardigan	2 0	0...	—	—	0 0 0	0 0 0.. Feb. 1878
12000 Roman Gravels, t, Salop*	7 10	0...	9%	9%	6 5 0	0 0 0.. Nov. 1882
4000 Rydham, *t, Wales	10 0	0...	5	5%	0 5 0	0 0 0.. Feb. 1880
512 South Caradon, t, St. Cleer	1 5	0...	40	35 40	749 3	0 0 0.. July 1880
6123 South Conduor, t, Camborne	6 5	0...	9%	9 10	0 6 0	0 0 0.. Aug. 1882
6000 South Darren, t, Cardigan	1 15	0...	4%	13%	0 4 0	0 0 0.. Apr. 1880
6000 South Wheal Frances, t, Illogan	9 2	0...	10	10%	40 15 0	0 13 0.. July 1880
6000 Tincroft, t, Pool, Illogan	11 10	0...	8%	7	51 3 0	0 5 0.. Dec. 1881
15000 Van, t, Llandilo	4 5	0...	6%	6 1/2	25 10 0	0 2 0.. July 1882
12000 West Holway, *t, Flintshire	1 0	0...	—	—	0 1 0	0 0 0.. Oct. 1882
512 West Tolgas, c, Redruth	99 0	0...	17%	15 17%	33 0 0	0 1 0.. Jan. 1879
2400 West Wheal Seton, c, Camborne	15 0	0...	4%	4 5%	22 11 0	0 3 0.. Apr. 1878
6000 West Bassett, c, Illogan	7 0	0...	4	4%	6 3 0	0 0 0.. Aug. 1882
12000 Wheal Crebrier, c, Tavistock	2 4	0...	3%	3%	16 0	0 2 0.. Nov. 1882
1024 Wheel Allys Consols, t, St. Austell	18 0	0...	20	18	50 13 0	0 5 0.. Aug. 1882
15000 Wheal George, *t, b, Carnarvon	1 0	0...	—	—	0 18 0	0 0 0.. Feb. 1880
6000 Wheal Grenville, t, Camborne	15 0	0...	9	9%	12 6 0	0 5 0.. Sept. 1882
4295 Wheal Kitty, t, St. Agnes	5 12	0...	2	1 1/2	12 18 6	0 0 1.. Jan. 1881
3000 Wheal Peever, t, Redruth	8 1	0...	4	3%	45 8%	8 13 0.. 0 4 0.. Mar. 1882

FOREIGN DIVIDEND MINES.

	Paid.	0 0 0...	1%	2xd...	2 0 0...	0 2 6.. Oct. 1882
35500 Alamillos, t, Spain*	2 0	0	2	1%	2xd...	2 0 0...
13000 Almudra and Trito Consols, *s-t	1 0	0	3	3%	34 34%	0 6 3.. 0 0 0..
20000 Australian, c, South Australia	7 7	0	24	24%	24 24%	11 10 0.. 0 3 0..
15000 Birdseye, Ord, *g, Cornwall	4 0	0	1%	1%	1%	0 0 0.. 0 3 0..
20000 Copper Mining, *t, South Africa	7 0	0	55	54%	55% 48 7	0 1 0.. Sept. 1882
50000 Copiapo, t, Chile (44 shares)*	3 5	0	4%	4%	4 4%	19 9.. 0 1 0.. Sept. 1882
7000 English & Australian, *c, St. Aust.	2 10	0	1%	1%	1%	0 0 0.. Mar. 1882
20000 Eng. Aus. & Vict. * pref. (20000 o.)	1 0	0	2%	2%	2%	0 0 0.. April 1882
25000 Fortuna, t, Spain*	2 0	0	4	4%	3 4%	0 0 0.. Sept. 1882
60000 Frontino & Bolivia, g, New Gran.*	2 0	0	2%	2%	2%	0 0 0.. Sept. 1882
200000 La Plata, t, Leadville	2 0	0	2%	2%	2%	0 0 0.. Sept. 1882
15000 Linares, t, Spain*	3 0	0	4	3%	4 3%	0 0 0.. Sept. 1882
18514 Mason & Barry, c, Portugal	10 0	0	17	16 16%	1 15 0	0 10 0.. Oct. 1882
60000 New Quebeca, Venezuela	10 0	0	5%	4%	4 5%	0 9 0.. 3 0.. Aug. 1882
10000 Ditto, Dobrentur	10 0	0	102	97 102	6 per cent.	0 0 0.. July 1882
3000 Oregon, g, Oregon, U.S. (pref. sh.)	4 0	0	—	—	0 2 6.. 0 2 6.. Dec. 1880	
50000 Panuello, c, Chile*	4 0	0	7	6%	7 3%	1 6 9.. 0 0 0.. Oct. 1882
25000 Pitangui, g, Brazil (in 6000 £1 pd.)	0 10	0	—	—	0 1 0.. Sept. 1882	
14000 Ponteibald, s-t, France	20 0	0	14	12 14	28 17 6.. 0 7 3.. Dec. 1882	0 0 0.. Sept. 1882
10000 Port Phillip, g, Clunes* (42 shares)	1 0	0	3	3%	1 14 2	0 0 0.. Feb. 1882
50000 Rara Fortune, *s, Argentine Republic	1 0	0	—	—	0 3 0.. 0 1 0.. Jan. 1882	
54000 Richmond Consols, s, Nevada*	5 0	0	—	—	0 5 0.. Nov. 1882	
94532 Rio Tinto, c, Mortgage Bds., Huelva	100 0	0	101	99 101	1xd...	5 per cent.
35000 Ditto, share	100 0	0	24%	23 24%	24 2%	0 0 0.. July 1882
40000 Santa Barbara, g, Brazil	10 0	0	10	9%	10 9%	0 0 0.. Aug. 1882
12000 Scottish-Australian Mining Co., t	1 0	0	24	24%	24 24%	0 0 0.. Oct. 1882
80000 Ditto, New	0 10	0	13	13%	13 13%	0 0 0.. Oct. 1882
22500 Siberia Buttes, g, California	2 0	0	24	24%	24 24%	0 0 0.. Oct. 1882
400000 St. John del Rey (1/25 Stock and multiple dealt in)	180 200	0	5	5%	5 5.. for half-year June	0 0 0.. June 1882
16000 Tambachery, g, Wynnaid	1 0	0	7%	6 7%	6 7.. 0 0 0.. Aug. 1882	
51890 Tharsis, c, sul, Spain (31100 t. 7. p.t.)	10 0	0	42	40 41	31 6 0.. 2 10 0.. May 1882	0 0 0.. Sept. 1882
20000 Tolima, g, Colombia (A & Bahares)	5 0	0	54	43 54	2 1 6.. 0 5 0.. Dec. 1881	0 0 0.. Feb. 1882
25000 Victoria* (London), g, Australia	1 0	0	—	—	0 13 10.. 0 0 0.. Aug. 1882	0 0 0.. June 1882
100000 Victorine (Nevada, U.S.) Deb. Bds.	1 0	0	—	—	0 2 0.. 0 0 0.. Aug. 1882	0 0 0.. June 1882
50000 Western Andes, s, Colombia	5 0	0	—	—	0 3 17 6.. 0 0 0.. Aug. 1882	0 0 0.. June 1882
21000 Yorke Pen., c, South Aust. Pref.t.	1 0	0	1%	1%	9 10.. 4 2 0.. 0 8 0.. Apr. 1881	0 0 0.. May 1882
54800 Yorke Pen., c, South Aust. Pref.t.	1 0	0	1%	1%	9 10.. 4 2 0.. 0 8 0.. Apr. 1881	0 0 0.. May 1882

\$ Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

	Shares.	Paid.	Last wk.	Clos. pr.	Paid.	Last wk.	Clos. pr.

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